521

New Orleans Medical
and
Surgical Journal

Vol. 91 APRIL, 1939 No. 10

THE BIOGRAPHIC CHRONOLOGY OF THE PAST PRESIDENTS OF THE LOUISIANA STATE MEDICAL SOCIETY*

WITH A BRIEF SUMMARY OF THE MEETINGS AND ACTIVITIES OF THE PAST PRESIDENTS' ADVISORY BODY

R. MATAS, M. D.†

NEW ORLEANS

PART I: SYNOPSIS OF STATISTICAL DATA GATHERED FROM THE BIOGRAPHIES OF THE PRESIDENTS OF THE LOUISIANA STATE MEDICAL SOCIETY (1879-1939)

With the ascension of Dr. J. A. O'Hara to the presidency of the Louisiana State Medical Society in May, 1938 (to serve for 1938-1939), and if we include the president-elect, Dr. Clarence Lorio, there are now listed fifty-eight presidents of the organization; twenty-three living and thirty-five dead. At the date of this report, February 16, 1939, Dr. W. Glendower Owen is the oldest ex-president, being 80 years of age, and Dr. Roy B. Harrison of New Orleans, the youngest ex-president at the age of 48 years.

The oldest presidents at the time of their election were Dr. J. P. Davidson, of New Orleans, and Dr. Richard H. Day, of Baton Rouge, both of whom gained this distinction at the age of 71 years. The former survived his office 7 years and the latter 8 years. The youngest president to attain office was Dr. Isaac J. Newton, Jr., of Bastrop, who was elected when 32 years old. He survived his office 41 years, which is the second longest survival to date.

Two presidents died in office: Dr. Albert B. Miles, of New Orleans, in 1894, and Dr. E. Lee Henry, of LeCompte, in 1920. One president, Dr. Robert M. Littell, of Opelousas, resigned shortly after his election in 1895.

The average age of survival for the deceased presidents is 16.5 years, and those living, 14.1 years, or 16.5 years for the dead and practically 14 years for the living.

There are certain notable exceptions to this average, as, for instance, among the deceased, Dr. Isaac J. Newton, who survived his presidency 41 years; Dr. A. A. Lyon, 35; Dr. James C. Egan, 32; Dr. Robert Littell, 31; Dr. Charles Chassaignac, 31; Dr. J. B. Elliott, 30; Dr. Henry Dickson Bruns, 26; Dr. F. W. Parham, 26; Dr. J. W. Dupree, 25; Dr. E. D. Martin, 24; Dr. Oscar Dowling, 23; Dr. G. A. B. Hays, 20; and Dr. E. M. Ellis, 2 years.

Among the living, Dr. Matas, the present historian of the Society, has survived his presidency 44 years; Dr. W. G. Owen, 39; Dr. R. O. Simmons, 27; Dr. Fred J. Mayer, 25; Dr. George S. Bel, 24; Dr. James C. Willis, 23; Dr. Wilkes H. Knolle, 20 years.

The medical specialties of the 58 presidents are represented as follows: General practice, 23; surgery, 10; internal medicine, 5; sanitation, 4; bacteriology, 2; dermatology, 1; psychiatry, 2; neurology, 1; radiology, 3; otolaryngology, 3; urology, 2; ophthalmology, 1; obstetrics, gynecology and abdominal surgery, 1.

*Supplement to "Remarks in Presenting a Stereopticon Exhibit of the Portraits of the Founders and Presidents of the Louisiana State Medical Society," R. Matas, N. O. Med. & Surg. J., 82:20, 1929.

†Chairman of the Committee on History, and President of the Past Presidents' Advisory Body.

Twenty-four of the presidents have held professorial positions on the teaching staff of the Tulane University Medical School, and one on that of Louisiana State University Medical School. One was Dean of the Tulane Undergraduate Medical School, 1908-1920, Dr. Isadore Dyer. Three have been Deans of the Tulane Graduate School of Medicine: Dr. Charles Chassaignac (1897-1925), Dr. Denegre Martin (1925-1928), and Dr. H. W. Kostmayer (1934-). Dr. O'Hara is professor in the Louisiana State University Medical School.

It is a notable fact that none of the three primal founders, Chaillé, Bemiss and Richardson, ever occupied the presidential chair of the Louisiana State Medical Society.

Three have been presidents of the Louisiana State Board of Health: Dr. Joseph Jones (1880-1884), Dr. Oscar Dowling (1910-1928), and Dr. J. A. O'Hara, now and since 1928. One is Secretary-Treasurer of the Louisiana State Board of Medical Examiners (1921-), Dr. Roy B. Harrison.

The presidents represent the parishes in the following order: Orleans, 28; Caddo, 6; East Baton Rouge, 7; Rapides, 3; Plaquemines, 2; St. Mary, 2; Avoyelles, 2; St. Landry, 2; Acadia, 1; Iberville, 1; Lafourche, 1; Morehouse, 1; Richland, 1; Ouachita, 1.

It is again interesting to note that 35 of the 58 presidents are graduates of Tulane Medical School and 23 are from 16 other schools: Tulane, 35; University of New York, 1; University of Pennsylvania, 3; Medico-Chirurgical College of Philadelphia (now Graduate School of the University of Pennsylvania), 1; St. Louis Medical College, 1; University of Louisville, 1; Louisville Medical College, 3; Charleston Medical College, 1; Medical College of Carolina, 1; South Carolina University, 1; Jefferson Medical College, 1; Washington Medical College, 1; Vanderbilt University, 2; University of Tennessee, 2; Maryland Medical College, 1; Memphis Hospital Medical College, 2; New Orleans School of Medicine, 1. Total 58.

Three of the four primal founders (including the late Dr. Ernest Lewis) are likewise graduates of Tulane Medical School. It is evident therefore, that Tulane University continues to be the cradle and nursery of the majority of the presidents of this Society and of the leaders of the medical profession in Louisiana.

PRESIDENTS OF THE LOUISIANA STATE MEDICAL SOCIETY
SINCE ITS FOUNDATION, 1879-1939, TOTAL 58.
OF THE 58 PRESIDENTS, 35 HAVE DIED: 23 ARE LIVING,
INCLUDING PRESIDENT-ELECT LORIO, TO BE INAUGURATED AT THE 1939 SESSION

DATA REGARDING THE 23 LIVING PRESIDENTS

Name	Residence	Date of Birth	Date of Presidency	Age When Elected President
Rudolph Matas	New Orleans	1860	1894-95	33
W. Glendower Owen	White Castle	1858*	1899-1900	40
R. O. Simmons	Alexandria	1868	1911-12	43
Fred J. Mayer	Opelousas	1859	1913-14	54
George S. Bel	New Orleans	1872	1914-15	42
James C. Willis	Shreveport	1865	1915-16	50
Wilkes H. Knolle	New Orleans	1870	1918-19	48
Joseph* E. Knighton	Shreveport	1870	1921-22	51
Lester J. Williams	Baton Rouge	1880	1923-24	43
S. M. Blackshear	New Orleans	1884	1926-27	42
Arthur A. Herold	Shreveport	1882	1927-28	45
Leon J. Menville	New Orleans	1882*	1928-29	46
Frank T. Gouaux	Lockport	1883	1929-30	46
Herman B. Gessner	New Orleans	1872	1930-31	58
S. C. Barrow	Shreveport	1876	1931-32	55
Roy B. Harrison	New Orleans	1891	1932-33	41
Carl A. Weiss	Baton Rouge	1878	1933-34	55
S. Chaillé Jamison	New Orleans	1887	1934-35	47
C. P. Gray, Sr.	Monroe	1882	1935-36	53
H. W. Kostmayer	New Orleans	1883	1936-37	52
C. M. Horton	Franklin	1879	1937-38	58
Joseph A. O'Hara	New Orleans	1869	1938-39	69
Clarence A. Lorio	Baton Rouge	1896	1939-40	43

*Errata in original report hereby corrected.

The average age of the 23 living presidents is 62.8 years. The longest survivals since presidency to February 15, 1939 are Rudolph Matas, 44 years, and W. Glendower Owen, 39 years.

Thirty-five (60.3 per cent) of the 58 presidents were graduates of Tulane.

SPECIALTIES REPRESENTED BY THE 58 PRESIDENTS

General Practice	23
Surgery	10
Internal Medicine	5
Sanitation	4
Bacteriology and Pathology	2
Dermatology	1
Psychiatry	2
Neurology	1
Radiology	3
Otolaryngology	3
Urology	2
Ophthalmology	1
Obstetrics, Gynecology, and Abdominal Surgery	1

PARISHES REPRESENTED BY THE 58 PRESIDENTS

Orleans	28
Caddo	6
East Baton Rouge	7
Rapides	3
Plaquemines	2
Saint Mary	2
Ouachita	1
Avoyelles	2
Richland	1
Iberville	1
Saint Landry	2
Acadia	1
Lafourche	1
Morehouse	1

LIST OF PRESIDENTS OF THE LOUISIANA STATE MEDICAL SOCIETY WHO HAVE DIED SINCE THE SEMI-CENTENNIAL IN 1929

Name and Dates of Birth and Death	Residence	Date of Presidency	Age When Elected President	Age at Death
I. J. Newton (1856-1930)	Bastrop	1888-89	32	74
Charles Chassaignac (1862-1936)	New Orleans	1904-05	42	74
Henry Dickson Bruns (1859-1933)	New Orleans	1906-07	47	74
Oscar Dowling (1866-1931)	New Orleans	1907-08	41	65
E. Denegre Martin (1863-1933)	New Orleans	1908-09	45	70
Benjamin Ledbetter (1868-1931)	New Orleans	1912-13	44	63
William H. Seemann (1878-1938)	New Orleans	1916-17	38	60
Clarence Pierson (1868-1934)	Alexandria	1917-18	49	66
Homer Dupuy (1871-1936)	New Orleans	1920-21	49	65
Paul Gelpi (1874-1932)	New Orleans	1922-23	48	58
C. V. Unsworth (1870*-1929)	New Orleans	1924-25	53	58

*Error in original report hereby corrected.

PART II: PAST PRESIDENTS' ADVISORY BODY
HISTORICAL NOTE

Beginning with annual dinners, instituted for purely social enjoyment, the Past Presidents' group of the Louisiana State Medical Society has developed through the years with little or no actual organization or official interest, but with an ever increasing sense of loyalty to the society and its welfare.

At the annual meeting of the society, May 1, 1930, Dr. Robert G. Douglas, of Shreveport, introduced in the House of Delegates an amendment to the charter "providing for the retention of our ex-presidents as an advisory board to the House of Delegates, with all the privileges except voting on constitutional offices," and moved its adoption. The motion, seconded by Dr. Chalaron, was carried. The secretary stated that there were other amendments being held over and suggested postponing publication of a new charter for another year in order to include this amendment, which would probably pass the next year.

According to constitutional order, April 13, 1931, Dr. Douglas again introduced the above amendment, which then had to be held over for twenty-four hours before a vote could be taken.

On April 16, 1931, the motion of Dr. Douglas, submitting an amendment to Article V of the constitution, "House of Delegates," as follows, was read:

"The House of Delegates shall be the legislative and business body of the Society, and shall consist of: (1) Delegates elected by the component district or parish societies; (2) ex-officio, the officers of the Society as defined in this Constitution, and (3) an Advisory Body composed of Past Presidents without the power of voting on constitutional offices." Dr. Ber-

nadas moved adoption of the amendment, seconded by Dr. deGravelles. Then followed discussion as to whether or not the power of the presidents should be limited as stated. The amendment was finally carried as read.

In addition to the preceding amendment, the House of Delegates appointed a committee consisting of Drs. Glendower Owen and E. O. Trahan, to order testimonial medals to be awarded living past presidents, in accordance with the precedent established by the American Medical Association, which annually confers a medal on its retiring president. The emblems were conferred on all living past presidents of the Louisiana State Medical Society at the annual meeting of 1932, and each succeeding year up to the present time, a similar emblem has been conferred on the retiring president.

The living presidents are listed as Advisory Body in the list of delegates in the minutes of the annual meetings beginning with 1932, and in the program of the annual meetings beginning with 1934. The Past Presidents' dinner, instituted in 1928, has its place on the printed program of the annual meetings beginning in 1935.

PAST PRESIDENTS' ORGANIZATION, 1928-1939

On April 9, 1928, during the annual meeting of the society, in Baton Rouge, the past presidents first met at dinner as the guests of Dr. Lester J. Williams, at the Westdale Country Club. The custom has been continued coincidently with each annual session on the first day of meeting, except in 1929, the semi-centennial year, and in 1932 when emblems were presented the past presidents.

At the Lake Charles meeting in 1936, Dr. Matas was elected president of the organization "for life," and the following year, in Monroe, Dr. Roy B. Harrison was elected secretary.

Although as early as 1931 the presidents informally discussed their function and duties as an advisory board, mainly with a view to keeping politics out of the society, and similar informal discussions have marked several succeeding annual dinners, no definite plan for appropriately serving the society has been formulated, though suggestions from an appointed committee are under consideration. In the interval, the past presidents' group continues to be essentially a social organization, in which good fellowship prevails. Seriously concerned in the society's welfare, it has held its latent potentialities in reserve for action when called for.

STANFORD E. CHAILLE

AN APPRECIATION*

ISIDORE COHN, M. D.

NEW ORLEANS

This is a moment of memory and inspiration; memory, for those who were privileged to know the Dean, and inspiration for the younger generation who are to learn something of the great leader whose life and work paved the way for medical organization in New Orleans and Louisiana, for high standards of medical education in the South, and for a consciousness of the duties of the doctor as a citizen.

We cannot perpetuate the memory of the immortal, but we can with justice try to keep burning the eternal light of the life and ideals of Chaillé, to whom we and the future generations are indebted for so much.

When we think of Dr. Chaillé, we must think in terms of a circle with him as the central figure. From the center of the circle the radiating lines to the circumference represent the many activities of his life and his accomplishments. The multitude of tangents from the circumference are too numerous to mention. At this time as radiating lines we think of the citizen, the soldier, the teacher, the executive, the organizer, the loyal friend, the man of uncompromising ideals, honesty and integrity.

We should forever cherish the memory of one who labored that we might work in professional unity, and to the end that

*Annual Chaillé Memorial oration presented before the Orleans Parish Medical Society, December 12, 1938.

the citizens of our country might enjoy the privileges of protection against communicable disease.

The dedication of an annual oration to the memory of Stanford E. Chaillé is peculiarly fitting. Dr. Chaillé was one of the founders of the Orleans Parish Medical Society, and of the Louisiana State Medical Society. He was the author of the constitution and by-laws of both organizations. At the dedication of the domicile of the Orleans Parish Medical Society in 1911, he said that he "took part in the generation, the parturition, the delivery, and the devoted parental nursing, during the ten years of the feeble childhood of both societies."

Poverty, chaotic reconstruction conditions, poor lines of communication and lack of appreciation of the importance of organization by medical men are reasons that state and parish medical units had not been formed.

When General Nicholls was elected Governor of Louisiana April 26, 1877, "All patriots realized that we free-born white citizens, had gained our liberty, and justice and progress depended at last on ourselves and no longer on aliens, traitors, and freed slaves backed by the Federal Army." (Chaillé).

Dr. Chaillé felt that an opportune time had arrived to organize state and parish medical societies. Therefore the Orleans Parish Medical Society was organized May 6, 1878, and the State Medical Society on April 9, 1879.

Chaillé was convinced that:

"Public health is a nation's wealth.

"Disease fosters immorality.

"To promote public health and avoid the woeful evils of disease, medical education is indispensable."

Dr. Chaillé urged that the greatest duty of the new societies was to promote the public welfare. No man ever taught the duties of citizenship and the necessity of a proper liaison between the doctor and the public welfare more ardently than did Stanford E. Chaillé.

When he learned that a state constitutional convention was to be called for 1879, he worked strenuously in order to prepare an article on state medicine for introduction into the State Constitution.

Article 178 of the Constitution of 1879, which is to the effect that: "The general assembly shall provide for the interest of state medicine in all its departments," was the fruit of Dr. Chaillé's efforts.

Let me remind you, as he himself would say, that his efforts were not all met by acclaim. By his own report he received "unusual applause, but very little support." The profession denounced evils, "but did nothing to correct them."

His clarion calls to appreciate one's duties as a citizen are beautifully summed up in these words: "We teach our children to sing that our country is the land of the free, and the home of the brave, and when these soul stirring words are heard, we, swelling with pompous vanity, uproariously applaud. Are you sufficiently free of indolence, ignorance, prejudice; are you brave enough to strive to establish such good laws, in every department of state medicine as would very greatly benefit the commonwealth?"

Chaillé's interest in state medicine or public hygiene as he calls it, marked him as being far ahead of his time, for as early as 1879, he said: "No one of the four branches of state medicine involves the public welfare to so enormous an extent as preventive medicine."

These are prophetic statements because only within recent years have we consistently taught, investigated, and worked on the subject of preventive medicine as we should.

Preventive medicine did not receive the recognition which he thought it should and in 1882 he expressed his impatience with this unfortunate state of affairs. "We ought not to be surprised that hygiene is still so ill appreciated by the people, when we recall the many centuries it required to establish, as popular political principles, freedom of religious belief, liberty of speech, and of the press, general suffrage and universal

education: to discover, then popularize the facts, that the earth was round, that in its annual course it encircled the sun, and that the dreadful thunderbolt of awful Jove could be drawn from his mighty hand by feeble man and forced to write, to speak, and even to light a street lamp."

Did advancing age diminish his ardor for the spread of knowledge with reference to preventive medicine? This can only be answered by referring to his forceful writing as late as 1898: "A man's health is his property, and more valuable than his purse. Let him waste either if he will; but he shall not waste either in injuring others against their will."

* * *

Yellow fever which had been such a tremendous scourge and impediment to the progress of New Orleans and the South, appealed strongly to Dr. Chaillé, and in 1879 he extended his efforts for the benefit of Louisiana beyond our borders as Chairman of the Yellow Fever Commission to Havana. The work of the Yellow Fever Commission, which Dr. Chaillé headed, is, or should be, familiar to all. In order to appreciate, however, how responsive to scientific advances, how orderly and analytic his mind was, we must quote from his contributions as chairman. In 1879 Dr. Chaillé stated: "Progress in the knowledge and control of yellow fever will depend, not on wonderful discovery by luck or genius, but on the progress of science in microscopy, chemistry and diagnostics, and, in the progress of civilization, especially in the habitats of yellow fever, in vital statistics and public hygiene."

He insisted even then: "While yellow fever is not personally contagious, it is communicable, and there are unknown conditions favorable to the growth of the poison."

At the age of 73 Dr. Chaillé stated: "The probabilities now are, that the stegomyia is the sole cause for the dissemination of yellow fever."

With reference to the prevention of yellow fever in 1882, as Chairman of the Flushing Committee, he stated: "In truth there are only two preventive measures, namely, cleanliness and non-intercourse. . . . Thorough cleanliness of a city necessitates a perfect system of sub-soil as well as of surface drainage. . . . There are arguments in favor of quarantine which appeal to one's common sense so strongly that they leave, it seems to me, no room for doubt." His arguments bore fruit in the campaign of 1905.

I think that we may rightfully state that Chaillé was the greatest force for the diffusion of knowledge of preventive medicine that Louisiana has known.

Since no city and few states owe as much of their present prosperity to the work of the doctor and particularly of those who devoted their lives to preventive medicine I believe we may rightfully say that Dr. Chaillé deserves the title of First Citizen of Preventive Medicine in the State of Louisiana.

DR. CHAILLE THE TEACHER

Dr. Chaillé was wont to remind us that he was "three professors boiled into one." He was our professor of physiology, of hygiene and pathologic anatomy, as well as our Dean.

To each of these positions he brought the highest attributes, for to the position of professor of physiology, be brought his training as a student under Claude Bernard, then the greatest living physiologist; to the position of professor of hygiene, he brought the great amount of experience of the sanitarian and good citizen; to that of pathologic anatomy he attempted to instill into us the ways of Bichat; and to his duties as Dean, his native capacity as an executive, his forceful leadership, and the confidence of his associates in his absolute integrity and unselfishness.

Dr. Chaillé taught in the Medical School for fifty years and was Dean for twenty-four years. Speaking of this with his characteristic humor he stated: "To my very laborious duties as Professor from 1868 to 1909, there were added from 1885 to 1909, the heavy burden of the Deanship of the Tulane Medical Department, with such trying tasks as the management of its

finances and the persuading of from three to six hundred teachers and students to work in harmony."

Many eloquent evidences of appreciation of Dr. Chaillé as Dean and as Faculty Associate have been expressed by the late Dr. Lewis and our own Rudolph Matas, whom I believe Dr. Chaillé considered his most distinguished pupil and loyal friend.

I believe that Dr. Chaillé fulfilled all of the requirements of the ideal teacher. "The teacher should be a man whose ideals are above reproach, one whose ways are simple and direct, and whose motives are not tainted by selfish thoughts of personal aggrandisement, one who is not led to do things which are purely spectacular, one whose work is performed with a singleness of purpose intended to lead the younger aspirant to do things which are helpful to the sufferer and not done for the purpose of filling his purse or for newspaper notoriety."

"Purity of motive must actuate the teacher so that the pupil may have an ideal to follow." (Isidore Cohn)

Certainly our Dean typified all of these ideals and left with us a memory which will live beyond our own grave. It is our duty to pass on to others of a younger generation our appreciation of one who did so much for us during our student days.

DR. CHAILLE THE MAN

Some of the outstanding characteristics of the man were loyalty to friends, due appreciation of the rights of others and simple directness of thoughts and action. The following will serve as illustration: "The following testimony may hereafter be needed by you at a date when I may not be living, and as I am your only witness to facts antedating—I deem it a duty to record my evidence." (Quotation from an unpublished letter to a friend.)

This I believe to be eloquent evidence of the fact that an individual's loyalty can transcend the bounds of the grave. No more beautiful evidence of the greatness of an individual and his appreciation of loyalty I believe could be shown than this.

Dr. Chaillé intended that others should be privileged to enjoy all of the rights of citizenship, just as he expected others not to interfere with his own rights as a citizen. "The subject before us is simply and purely a question of politics. It is a matter for the legislature to deal with, not one to be dictated by a body of medical men. We cannot deny that homeopathists are citizens, sir, and as such they are entitled to legal rights. It is simply, sir, in that aspect that I view it, and I think a mistake has been made by some of the speakers here today, in that they fail to recognize the question as one entirely of citizenship and of politics."

In speaking of him on one occasion Mr. George Denegre, a close personal friend stated: "I never knew a man who had a greater hatred of knavery and trickery, he was unusually unaffected and unpretentious, absolutely free from envy, and of the highest integrity and honesty. He despised show, conceit and pretense, he dealt with realities."

I have spoken of Dr. Chaillé as the organizer, as the sanitarian, as a citizen, as a teacher.

I cannot with justice close without quoting from Dr. Chaillé's most illustrious pupil and friend, our own distinguished Dr. Matas. On April 25, 1912, Dr. Matas said: "No honor that we may render, no eulogium that we may utter, reach into the far off mysterious realm to which the spirit of the mighty dead has gone. But the living may be taught by a great example, and ambition may be stirred in those who follow us by the contemplation of such an inspiring life as that of this man, truly great in the accomplishment of noble deeds and worthy purposes."

May the illustrious example of our Dean encourage, stimulate and inspire us, to walk nobly, earnestly and honestly, in paths of truth and service.

Chaillé was a man—he is one of the immortals.

BIOGRAPHIC RESUMÉ

Dr. Stanford Emerson Chaillé was borne July 9, 1830 in Natchez, Mississippi; died May 27, 1911.

He entered the Medical Department of the University of Louisiana in 1851 and graduated in 1853.

From 1852 to 1853 he was resident physician Charity Hospital.

1853 to 1854 he was resident physician Circus Street Hospital.

From 1854 to 1860 he was Demonstrator of Anatomy in the Medical Department of the University of Louisiana.

From 1867 to 1908 he was Professor of Physiology.

1879 he was Chairman of the Havana Yellow Fever Commission, later he was appointed Expert Agent of the National Board of Health in New Orleans, and Supervisor of the National Board of Health in 1881.

From 1860 to 1861 he was a student in Paris, under Claude Bernard.

From 1861 to 1865 he served in the Confederate Army occupying various capacities from private in 1861 and 1862 to the position of Surgeon in charge of the Ocmulgee Hospital, Macon, Georgia, until May, 1865, when he was captured by the Federal troops and he was paroled in 1865.

Dr. Chaillé was Dean of the Medical Department of Tulane University from March 31, 1885 until 1908.

He was personal physician and friend of Jefferson Davis.

He was a sanitarian, soldier, teacher, executive, and medical organizer.

PERITONEOSCOPY*

GORDON McHARDY, M. D.†

NEW ORLEANS

My purpose in presenting this paper is an attempt to draw attention to a diagnostic measure which is relatively neglected. Though internist, surgeon, gynecologist, urologist and radiologist have written of it, only thirteen articles appear in the American literature.

Peritoneoscopy, the most recent diagnostic invasion of the body cavities by the endoscopist, consists of the visualization of the peritoneal cavity and its contents by means of an optical instrument; besides visualization it permits aspiration, biopsy, cauterization, coagulation and radon seed implantation. It departs from the ordinary endoscopic procedures in that its entrance orifice must be artificial and this may, in part, be the reason why the method of endoscopic laparotomy has advanced so slowly in comparison to the comparably recently accepted gastric endoscopy.

Kelling is credited with the introduction of this method of examination with his first work reported on animal experimentation in 1902. In 1910 both he and Jacobaeus separately reported on humans subjected to visceral exploration. These two workers established essentially the same technic as is now applied, both using cystoscopes. Numerous reports appeared in the literature but until recent years no adequate instruments were introduced, each author suggested some variation of the cystoscope.

It was not until 1934 that Ruddock, aided by the American Cystoscope Company, made available the excellent instruments which are responsible for the recent advances peritoneoscopy has made. The examination has been titled laparoscopy, celioscopy, abdominoscopy, ventroscopy, organoscopy, splanchnoscopy. Ruddock has endorsed the name peritoneoscopy and this term most ably describes the procedure.

It is surprising how slow this procedure is to attain a prominent place. Recent writers maintain its virtues and enthusiastically state it will soon gain wide acclaim. Until Ruddock's 1937 publication the literature had no presentable statistics. Soon, I am certain, there will be equally voluminous reports; I understand an extensive study is under way at The Mayo Clinic.

The indication for endoscopically examining the abdomen is any complaint of intraperitoneal nature undiagnosable by more conservative measures. It is not felt that this procedure is applicable to the acute abdomen but rather that it is an adjunct to other diagnostic measures in the puzzling chronic abdominal condition wherein time is available for study, and surgery, if deemed necessary, is elective.

The value of this procedure is emphasized by its ease of application, the convincing visual differential diagnosis, the possibility

---

*Read before the Orleans Parish Medical Society, November 14, 1938.

†From the Department of Medicine of the School of Medicine of Tulane University and the Gastrointestinal Service of Touro Infirmary.

of determining operability and the advisability of surgery. It does not replace laparotomy, but it lessens the indications for abdominal diagnostic surgery.

Ruddock, an internist, mentions the fact that the medical man "must share the responsibility for fruitless laparotomies performed for diagnostic purposes"; further, most often when the surgical search reveals an inoperable malignancy, the patient becomes the responsibility of the internist for the trying terminal care. It may be readily concluded, therefore, if the benefits of peritoneoscopy be available, that unnecessary and unsatisfactory surgical procedures may be avoided. Diagnostic laparotomy is not trifling, it entails expense, anesthesia, complications, bed confinement; in ascitic cases wound healing is quite a problem with evisceration all too frequent; in malignancy death frequently follows closely on operation and suspicion is thereby cast on the surgical procedure as the primary cause of death.

One does not have to practice medicine long to number among one's patients undiagnosed cases, unsuccessfully surgically treated individuals, psychotics who have become worse after repeated useless major abdominal surgery, and those dying with inoperable malignancies who have suffered exploratory operation. All of these evidence support for peritoneoscopy.

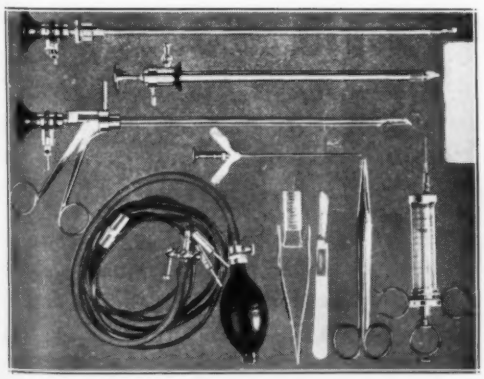

Fig. 1. Equipment for peritoneoscopy. (This and other illustrations are used through the courtesy of Dr. John Ruddock and the American Cystoscope Makers, Inc.)

EQUIPMENT

The peritoneoscopic equipment consists of: (1) a metallic sheath, a glorified paracentesis sheath, the top of which is fitted with a lock and a stopcock on the side; (2) an obturator, with a dull point which fits the sheath and becomes a trocar to aid entrance of the sheath into the abdominal wall; (3) the telescope, which also fits the sheath with an air-tight connection and is similar to a cystoscopic instrument; (4) biopsy forceps, which connected to a telescope fit the sheath, with an air-tight connection, and are equipped to take tissue and coagulate; (5) aspirator; (6) pneumoperitoneum needle of special design; (7) an illuminating Rehfuss gastric tube; (8) rubber tubing and bulb.

TECHNIC

The technic, relatively simple, is carried out under surgical asepsis. The abdomen is prepared as for laparotomy, novocain is used locally, the skin is nicked, the pneumoperitoneal needle is introduced and the abdomen is distended with air. The sheath with obturator is inserted as is a paracentesis trocar. If there is ascitic fluid

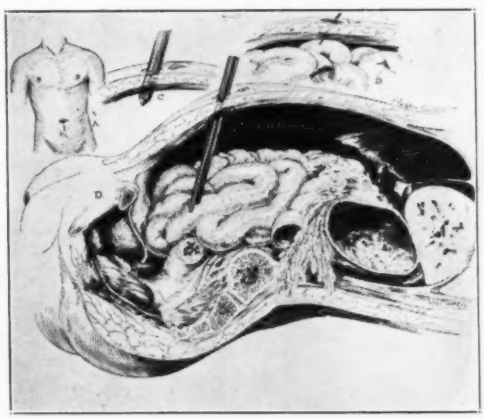

Fig. 2. Technic: (A) Site of puncture incised; (B) pneumoperitoneal needle in place for distending the peritoneal cavity; (C) peritoneoscopic sheath with trocar introduced; (D) examining the distended abdominal cavity.

this is aspirated. The telescope is introduced and the peritoneal cavity after distension is studied with the patient moved about and palpated as indicated for thorough examination. Biopsy is performed by

the forceps; the closed tip is the coagulating electrode.

To aid visualization of the stomach, rectum, sigmoid, colon and vagina a lighted tube is introduced into the respective sites.

Fig. 3. Abdominal adhesions as seen through the peritoneoscope.

Readily discernible pathology includes: (1) adhesions; (2) hepatic malignancy and cirrhosis; (3) tuberculous peritonitis; (4) carcinoma of different sites; (5) hepar lobatum; (6) ovarian cysts and tumors; (7) extra-uterine pregnancies; (8)

Fig. 4. Metastasis to liver observed by peritoneoscopy.

acute and chronic cholecystitis; (9) various types of splenomegaly; (10) gastric and duodenal lesions on the anterior surface; (11) polycystic kidneys; (12) bladder and sigmoid diverticula; (13) pelvic inflammatory disease; (14) uterine tumors, (15) malposition of pelvis viscera; (16) pancreatic enlargement.

Fig. 5. Cystadenoma of ovary.

COMPLICATIONS

Complications are rare but must be kept in mind. Accidental perforation of a viscus occurred in 1.6 per cent of Ruddock's 500 cases. This is avoidable with care: The site of puncture should avoid the scar of abdominal surgery where adhesions are most likely; the plunger should have a dull tip. We are all aware of how easily a paracentesis is done without fear of such complication.

A biopsy wound not properly coagulated may result in fatal hemorrhage; Ruddock presents a single example of such an accident.

An unsuccessful examination is likely in the plastic peritoneal cavity of tuberculosis and of malignancy, but such a failure is in itself diagnostic. Hernia through the puncture scar is a possibility, but there are no reports on its incidence. Hematoma at the puncture site is the most frequent accident, but it is of minor importance.

ACCOMPLISHMENTS OF PERITONEOSCOPY

Compilation of statistics reveal that: (1) The peritoneoscope has a diagnostic accuracy of 91.7 per cent; (2) endoscopic laparotomy, with the advantages of biopsy, can

be performed with a mortality of 0.5 per cent.

My own experience with this method of examination has been, like that of many physicians, too inadequate. I am not at this time prepared to present case reports in detail but I do have confirmatory conclusions from my work.

SUMMARY AND CONCLUSIONS

1. The method permits safe visualization of the peritoneal cavity, aspiration and biopsy under ideal circumstances avoiding the expense, inconvenience, discomfort, mortality and complications of surgical laparotomy.

2. While nothing can be accurately palpated more can be seen than in the average laparotomy:

3. Technical difficulties are few and dangers to the patient are minimal.

4. The diagnostic value is unquestionable. In only one instance did I fail to make a diagnosis and this case is soon to be reperitoneoscoped and a biopsy is to be done to determine the cause of a severe anemia with splenomegaly.

5. I have not encountered a complication. One patient was peritoneoscoped on three occasions without mishaps; the repeated peritoneoscopies were no more discomforting to the patient than were paracenteses which were necessarily done between peritoneoscopies.

6. A knowledge of surgical pathology is necessary for accurate diagnosis so that, if the internist is to be the user of this instrument, he must be a frequenter of the operating room and of the necropsy table.

7. Peritoneoscopy fills a definite need in the evaluation of diagnostic problems and offers promise of many benefits as our perception and knowledge develop.

BIBLIOGRAPHY

Anderson, E. T.: Peritoneoscopy, Am. J. Surg., 35:136, 137.

Benedict, E. B.: Peritoneoscopy, New England J. Med., 218:713, 1938.

Bernheim, B. M.: Organoscopy; cystoscopy of the abdominal cavity, Ann. Surg., 52:764, 1911.

Findlay, H. V.: Peritoneoscopy by the urologist, Urol. & Cutan. Rev., 42:168, 1938.

Hope, R. B.: The differential diagnosis of ectopic gestation by peritoneoscopy, Surg. Gynec. Obst., 64:229, 1937.

Jacobaeus, H. C.: The use of laparo-thoracoscopy from a practical point of view, Tr. Internat. Cong. Med., 1913, London, Sec. 6, Medicine, Pt. 2, p. 565, 1914.

Nadeau, O. E., and Kampmeier, O. F.: Endoscopy of the abdomen, Surg. Gynec. Obst., 41:259, 1925.

Nadeau, Oscar: Differential diagnosis of carcinomatosis and tuberculous peritonitis by means of the cystoscope, Clin. N. Amer., 8:561, 1928.

Orndoff, B. H.: Peritoneoscope, pneumoperitoneum and x-ray in abdominal diagnosis, Illinois Med. J., 39:61, 1921.

Ruddock, J. C.: Peritoneoscopy, West. J. Surg., 42:392, 1934. Peritoneoscopy, Surg. Gynec. Obst., 65:623, 1937.

Short, A. R.: The use of coelioscopy, Brit. Med. J., 2:254, 1925.

Stolkind, E. J.: The value of pleuroscopy in the diagnosis of pulmonary diseases, and laparoscopy in the diagnosis of abdominal diseases, Med. Press & Circ., London, 107:46, 1919.

Steiner, O. P.: Abdominoscopy, Surg. Gynec. Obst., 38:266, 1924.

Stone, W. E.: Intra-abdominal examination by aid of the peritoneoscope, J. Kansas Med. Soc., 24:63, 1924.

Sweek, W. O.: A new and practical abdominoscope, Surg. Gynec. Obst., 45:700, 1927.

Tierney, J. L.: Pneumoperitoneum, J. Missouri State M., 17:137, 1920.

DISCUSSION

Dr. William H. Meade (New Orleans): As stated by the speaker this procedure was done first over thirty-five years ago, the Nitze cystoscope being used.

While radiologists, internists and surgeons have written on this subject, and recently an extensive article by Ruddock an "internist," appeared in the literature, this procedure appeals to me as being a strictly surgical one, because (1) training in asepsis; (2) familiarity with macroscopic pathologic anatomy of the abdomen and (3) the ability to cope with complications arising from the use of the instrument itself, are essential.

As Ruddock states, this procedure cannot and will not replace laparotomy. It however may save some patients from unnecessary surgery and in other cases may guide the surgeon's approach.

Due to the generosity of Dr. Ficklen in allowing me the use of his peritoneoscope I have had a limited experience with the procedure. Eighteen patients were examined, nine of them under ideal conditions, i. e., they were done at the autopsy table within three hours after death. At least that number should be done for orientation and to keep from looking at the same thing throughout the procedure.

The following diagnoses were made in the cases: (1) fibroids; (2) acute salpingo-oophoritis; (3) chronic pelvic inflammatory disease; (4) carcinoma of the stomach; (5) peptic ulcer; (6) adhesions from the cecum to the parietal peritoneum; (7) adherence of the omentum to the parietal peritoneum; (8) non-specific chronic granuloma of the ascending colon; (9) absence of liver and peritoneal involvement in carcinoma of the rectosigmoid; (10) normal abdominal viscera in five cases. The chronic non-specific granuloma at surgery was found to be a hypernephroma of the lower pole of the right kidney. A large stone

in a fairly normal appearing gallbladder was missed, and I believe this could have been palpated with the instrument had I been suspicious of its presence.

Patients with extremely well developed musculatures do not distend well; fluid must be aspirated when present in sufficient amount to envelop the objective lens, and, in introducing the trocar through the peritoneum, care must be taken to keep the instrument almost parallel to the abdominal wall. (The method is well adapted to differentiating intra-abdominal masses from abdominal wall masses, both by direct vision and by transillumination.)

Not one of the nine living patients complained of pain in the shoulder; in fact very little complaint was elicited from any patient except the one with the acute salpingitis who complained of severe pain when the tubes were touched with the instrument. One girl, aged 14, who had had two abdominal operations, returned with a complaint of abdominal pain and vomiting. Members of her family were mentally unstable and she was no improvement on the others. We expected to have considerable trouble with her, but she did not complain once during the examination.

In cases of malignancy of the stomach, and possibly of other organs, I do not think that one can always judge by peritoneoscopy as to whether the lesion is operable or inoperable; of course with multiple metastases the conclusions are obvious. Where the differentiation between tubal pregnancy and pyosalpinx or hydrosalpinx is to be made, the instrument has an unquestioned status.

Returning to my original thesis that this is a surgical procedure and not a minor one either, a hospital and not an office procedure, to be convinced one has to turn only to the complications mentioned by Ruddock. There were eight perforations: four of the small bowel, two of the large bowel and two of the stomach. There was one fatal hemorrhage from biopsy.

I suggest that this procedure can be used as a substitute for a complete autopsy, when the relatives object to a mutilating incision.

Dr. Warren Hebert (New Orleans): It is probable that peritoneoscopy along with the other endoscopic methods of diagnosis will some day occupy a conspicuous place.

My information in regard to this subject is based on personal experience and personal contact with a man who has popularized the recent use of the peritoneoscope. During the past summer it was my good fortune to assist Dr. Ruddock for a period of one week during a visit to Los Angeles.

The question has been asked, why has peritoneoscopy failed to advance more rapidly? Only in recent years has an instrument been perfected which will justify an artificial opening in the abdomen for this type of an examination.

The American Cystoscope Makers withheld publicity concerning this instrument until the recent publication by Ruddock which appeared in the Journal of Surgery, Gynecology and Obstetrics. This instrument was first exhibited last summer at the meeting of the American Medical Association, and will prove of value to the surgeon, gynecologist and the internist. It will be of particular interest to the surgeon and gynecologist because they are in constant contact with the appearance of the organs within the abdominal cavity.

How is this examination best conducted? Let us assume the patient has been prepared as for an abdominal operation. The instrument is inserted through a puncture wound and the examination of the abdominal cavity is carried out. The examiner will decide whether or not this examination is sufficient or should an exploration be carried out. If an exploration is advisable, the anesthetic is administered and the abdominal incision is enlarged so as successfully to perform an abdominal exploration. In other words, the desirability of a peritoneoscopic examination will depend on whether or not an exploration of the abdomen is possible should it be considered advisable at the completion of the endoscopic examination. If examination has to be postponed to some later date this may not always be desirable.

It seems as though the principle indication for this type of examination is in a case of abdominal ascites. In this condition it is necessary to perform a paracentesis in order to establish a diagnosis as well as relieve the distention from the excessive accumulation of fluid. Following removal of the fluid, a light can be inserted which enables the entire abdominal cavity to be examined. If this instrument does nothing more than allow visualization of the abdominal cavity after the removal of fluid in cases of ascites, it will have served its purpose.

My remarks are not in support or condemnation of this procedure. The fact remains, it is a procedure that cannot be denied and in time it will occupy a position along with the various other endoscopic methods used in diagnosis.

In answer to the question, why has peritoneoscopy failed to progress more rapidly, I will say this: Peritoneoscopy has waited for a peritoneoscope, and now the instrument is here.

Dr. Gordon McHardy (In conclusion): I agree fully with everything said in regard to this procedure having complications but these have been minimal in a large series of cases. I will also add, in dispute with Dr. Meade's statements, that it is claimed by the surgeon, internist, urologist and gynecologist. The urologist has basis for his claim in that he is more familiar with such an instrument, the surgeon in that he is more familiar with abdominal pathology, the gynecologist in that he is interested in the pelvic aspects. I do not feel that the internist lacks the wherewithal to

learn surgical pathology. However, regardless of who gets credit for using the instrument, its value is unquestionable and I hope that it may be used more widely in the near future.

GASTROSCOPY*

DONOVAN C. BROWNE, M. D.

NEW ORLEANS

Since the introduction of the flexible gastroscope in this country by Schindler in 1935, the utilization of this method of examining the stomach has spread consistently. A number of articles dealing with the technic of gastroscopy and reports of studies have been published. The excellent book recently published by Schindler makes unnecessary a discussion of the routine technic of examination or a detailed description of the instrument itself. It is not my purpose to present at this time any particular work I have been carrying on in the past few months but rather again to call your attention to this method of morphologic examination of the stomach and to stress its clinical importance. Although gastroscopy has been employed elsewhere for several years, it is only recently that it has been utilized here.

For many years the clinical diagnosis of gastric disease was centered around a study of the function of this organ; yet the desirability and necessity of direct examination of the gastric mucosa and its anatomic changes in diseases have long been felt. Efforts to accomplish this date back to Kussmaul, 1868, who probably designed the first gastroscope.

Following this, many valuable contributions were made and many of the hazards and technical difficulties were overcome by the efforts of such men as: Nitze, 1879; Mikulicz, 1881; Kelling, 1900; Sussmans, 1911, and many others. None of the scopes developed by these men overcame the hazards and technical difficulties until Schindler, working with Wolfe of Berlin, in 1932, devised a flexible instrument which solved most of the previous difficulties and placed gastroscopic examination on a firm base.

This development changed the whole aspect of the clinical value of gastroscopic examination of the stomach; it is true, however, that the instrument as recently developed leaves much to be hoped for. Its proper use cannot be accomplished without considerable training. There are a few so-called blind spots which may not be inspected under certain conditions but the comparative safety of the instrument places its use within the reach of everyone truly interested in gastrointestinal studies.

A word of caution is properly interposed at this time. While I am convinced that the technic of gastroscopy is not beyond reach of any student, I am sure that it is not as easy as some would have us believe and without thorough knowledge of the instrument and proper training no one should attempt its introduction; accidents have been recorded. This part of gastroscopic examination, however, does not present the greatest difficulties to the beginner. Orientation and the proper interpretation of the findings I am sure present the most difficulty and require much more experience. In cystoscopy there is a certain simplicity, a spherical mass is being inspected, but in gastroscopy an organ is being inspected which forms marked angles and in which the planes are curved in a complicated manner so that distances from the objective of the scope are quite varied.

A question which is most frequently asked is whether all parts of the stomach may be inspected by this method. It must be remembered that the gastroscope is constantly in contact with the posterior wall of the stomach and since the mucosa must be at least one-half centimeter from the objective to be visualized there is a narrow strip which is invisible in the standard scope. Rodgers has overcome this recently by using a special sheath which lifts the objective away from the posterior walls. There remains always a small area of the greater curvature directly in front of the scope which is invisible; since the objective

*Read before the Orleans Parish Medical Society, October 10, 1938.

looks sidewards this area becomes insignificant in the flexible scope and may be greatly reduced by proper manipulation. A third area lies beyond the angulus toward the pylorus. This area may come in view as the pylorus opens and closes. And lastly a small area of the cardia which lies above the esophageal opening is seldom visible; fortunately, this area is not frequently of clinical importance. It may be seen from this that a rather complete inspection of the gastric cavity may be made if the proper technic of examination at definite levels, as shown by Schindler, is followed.

PURPOSES OF GASTROSCOPY

There are those who feel that gastroscopy should be a routine procedure on all patients presenting gastrointestinal symptoms. I am convinced, however, that with the present stage of development this specialized examination should be reserved for the cases in which there is suspected lesion, placing it in the same category as cystoscopy which is certainly not indicated in all genito-urinary disturbances. There are certain contraindications which should always be borne in mind, such as, obstruction of the esophagus; marked cardiovascular diseases including angina, cardiac failure, aneurysms; acute abdominal conditions with fever, marked deformities of the spine, corrosive and phlegmonous gastritis, suspected perforation, and severe hemorrhage with patient in shock. There might also be added the thoroughly uncooperative patient since the use of the flexible scope requires some cooperation on his part.

Aside from the fact that it is a matter of great importance that the gastric mucosa be studied in the living subject to increase knowledge of the pathologic processes in this organ, the method of examination has already established clinical value both in diagnostic and therapeutic fields. In carcinoma of the stomach, where radiology and other methods of examination have definitely established a diagnosis, there is no indication for a gastroscopic examination other than to establish the operability of the case, for it is notable that the radiologic appearance of the lesion may be very misleading and the surgeon finds what appears to be a favorable case more or less hopeless. In such instances gastroscopy determines the degree of involvement of the stomach and aids materially in the decision. There are also many instances in which the radiologist is uncertain as to the diagnosis and functional tests unfortunately give very little help. Here gastroscopy finds one of its most useful applications and it may be the means by which unjustified laparotomy and more serious mistakes are averted. Probably one of the most important clinical fields that it opens is the early diagnosis of malignancy. It is unfortunate that with all the refinement in technic and interpretation the x-ray is so limited in its usefulness in very early malignancy of the stomach. I have had the opportunity of observing patients in whom radiologically negative stomachs showed by gastroscopy early malignant lesions and which were proved later by gastric resection. The usefulness of the gastroscope in this field has only been opened and probably one of its greatest contributions will be in the early diagnosis of malignancy.

GASTROSCOPY IN DIAGNOSIS AND TREATMENT

Again in the diagnosis and treatment of gastric ulcer gastroscopy finds a field of much usefulness, particularly in those cases in which a doubt exists; first, as to the existence of a lesion and, second, as to the nature of the lesion. Here a gastroscopic examination can establish the correct diagnosis and indicate the course of treatment. Already considerable evidence has accumulated to show that the gastric mucosal ulceration may be preceded by mucosal hemorrhage and that the chronic ulcer is preceded by an acute ulceration; the difference lies primarily in the time element. Unfortunately, with the most refined mucosal delineations these early mucosal lesions may not be demonstrated by the x-ray and it is only by gastroscopic examination that their presence is made known at this most favorable time.

It is not, however, in the diagnosis of peptic ulcer that the gastroscope is limited. It is often difficult for the clinician to de-

termine whether an ulcer is responding to treatment and it is generally recognized that the x-ray does not always reveal the ulcer but the defect results from the concomitant edema. This having subsided and clinical symptoms being controlled, the physician, as well as the patient, assumes a false sense of security and gastroscopic examination only may accurately determine the condition. Failure of proper response arouses suspicion and operation may be performed at a more favorable time. The postoperative marginal ulcer cases present one of the most difficult problems to the internist and surgeon alike. Unfortunately the x-ray silhouette is most inconclusive here and a direct inspection is of much value. Although the postoperative stomach presents some difficulties in examination, most often a definite diagnosis may be made by the skillful gastroscopist.

It is impossible to discuss detailed gastridities but this almost forgotten disease entity has been brought again to light and its clinical importance cannot be over estimated. It is true that the present state of knowledge concerning this leaves much to hope for and the exact significance of these changes in the gastric mucosa remains one of the major problems. Yet it is only by this method of examination that any concept of disease may be attained.

Another field of investigation which has been opened is the gastric manifestation of allergic disease and already many observations and references have been recorded. Such observations as those by Chevallier may give an answer to the vague digestive complaints of these patients and help to establish the role the gastrointestinal tract plays in allergic manifestations of the skin.

A number of other conditions in which the gastroscope may prove of vast clinical value should be mentioned, such as, vague cases of gastrointestinal disturbances now classified as neurosis, anemias, unexplained gastrointestinal hemorrhage, suspected syphilis of the stomach, and postoperative cases with persistent symptoms. As may be seen, the field of gastroscopy is already quite broad and as experience accumulates its indications may undergo much alteration.

GASTROSCOPY AND RADIOLOGY

The exact relation gastroscopy bears to radiology has provided much comment and I am sure that the advent of radiology retarded the development of the gastroscope, for it was hoped at that time that the much needed answer to the direct inspection of the stomach would be given. Unfortunately only time served to differentiate these two methods and it must be kept in mind that there is no conflict between these very useful methods of examination, that gastroscopy should always maintain its dependence on previous adequate radiology and no patient should be gastroscoped until this roentgenologic examination has been carried out. In x-ray examination shadows are read and silhouettes are interpreted which demonstrate the position, movement, and shape of the stomach and delineate the defects; whereas, the gastroscope is a direct inspection of the mucosa and gives evidence of changes, such as erosion, superficial hemorrhage, inflammation and color changes here which cannot be demonstrated by the present x-ray methods. Either method by itself is incomplete, yet combined offer the most valuable examination at our disposal and results are far beyond what might be hoped for by any functional tests.

SUMMARY

Always with the development of a new method of examination or therapy there follows a wave of enthusiasm which works to the detriment of the method and even in my day I have seen excellent work brought to ill repute by honest but over-zealous individuals. Gastroscopy is in its infancy and its field of usefulness has by no means been defined. I feel that by adopting a consistent and conservative attitude it will develop into one of the most useful methods of examining the gastrointestinal tract since the discovery of x-ray.

BIBLIOGRAPHY

Benedict, E. B.: Gastroscopic observations in neoplasm, New England J. Med., 214:563, 1936.

Hemorrhage from gastritis, gastroscopic study, Am. J. Digest. Dis. & Nutrition, 4:657, 1937.

Importance of gastroscopy in surgical diagnosis, Am. J. Surg., 40:5, 1938.

Baros, E.: Gastroscopy; past, present and future, Am. J. Digest. Dis. & Nutrition, 2:280, 1935.

Borland, J. L.: Flexible tube gastroscopy; technic; preliminary report, Am. J. Digest. Dis. & Nutrition, 3:744, 1936.

Present status of flexible tube gastroscopy, South. M. J., 30:310, 1937.

Carey, J. B.: Gastroscopic observations of postoperative stomach, Surg. Gynec. Obst., 65:447, 1937.

Dockeray, G. C.: Gastroscopy, Practitioner, 140:727, 1938.

Freeman, E. B.: Discussion of value of gastroscopy, Rev. Gastroenterol; 4:21, 1937.

Gastroscopy as diagnostic procedure. Am. J. Digest. Dis. & Nutrition, 4:312, 1937.

Gaither, E. H.: Present status of gastroscopy, South. M. J., 31:203, 1938.

Jackson, C. L.: Gastroscopy with flexible gastroscope, Ann. Otol. Rhin. & Laryng., 44:1150, 1935.

Loe, R. H.: Gastroscopic examination; review of 80 cases, Northwest Med., 37:139, 1938.

Marshall, E. A.: Gastroscopy as diagnostic aid, Ohio State M. J., 34:388, 1938.

Moersch, H. J.: Gastroscopy in diagnosis, J. Lancet, 58:87, 1938.

Morrison, L. M. and Swalm, W. A.: Contribution by gastroscope to physical medicine, M. Rec., 147:348, 1938.

Palmer, W. L., et al: Gastroscopy of gastric ulcer, Tr. A. Am. Phys., 52:264, 1937.

Pratt, G. H.: Diagnosis of stomach cancer; use of gastroscope and Grushkin test, Arch. Surg., 33:138, 1936.

Rodgers, H. W.: Device for increasing field in gastroscopy, Lancet, 2:438, 1936.

Ortmayer, M.: Indications for gastroscopy, Illinois M. J., 71:482, 1937.

Swalm, W. A., et al: Correlation of clinical gastroscopic findings in chronic gastritis, with report of cases, Rev. Gastroenterol., 3:219, 1936.

Symonds, C. W.: Gastroscopy: indications, contraindications, technic, Arch. Physical Therapy, 17:574, 1936.

Taylor, H.: History, technic and clinical value with report on 60 cases, Brit. J. Surg., 24:469, 1937.

Thorlakson, P. H. T., and Stewart, C. F.: Gastroscopy; indications and value, Canada M. A. J., 36:345, 1937.

Schindler, R.: Gastroscopy; The Endoscopic Study of Gastric Pathology, University of Chicago Press, 1937.

DISCUSSION

Dr. John H. Musser (New Orleans): Necessarily my discussion will have to be very limited as my interest in the subject is entirely academic. I have had no personal experience with the gastroscope. Several years ago I had the opportunity of looking down into the stomach when I was up in Minneapolis and my friend Dr. Carey had two patients he wanted me to see. Both were supposed to have an ulcer. In one patient I could see the ulcer readily but I am free to confess that in the other I could not see anything. As Dr. Browne has said it takes skill to interpret what you see and experience to know what the picture you see means.

In doing gastroscopy there is one contraindication which I do not think he brought out in his discussion, and that is esophageal varices. I believe that is a potent cause for danger. I may be wrong about it but it is very readily conceivable in my mind that the patient with cirrhosis of the liver who has marked esophageal varices might very well have a severe hemorrhage during the passage of the tube.

There is no question but that the use of the gastroscope will become a very frequent adjunct to the armamentarium of the specialist. There are no end of endoscopes but their use must be confined more or less to the men in specialties. It is remarkable when you come to think about it, how the growth of the endoscope has taken place in the last fifty years. There are scopes now that can visualize almost any section of the body, from the laryngoscope to the proctoscope.

Early endoscopes were those which looked into the pleural cavity and the peritoneal cavity. Now we have, in the last few years as a result of some extremely remarkable physical studies by the physicists, a scope with which you can look into the stomach and see the contour, irregularities, hills, mountains and valleys of the stomach wall. I feel sure that the use of the gastroscope will increase. There are very definite indications for its use and very definite results can be obtained by its use. I doubt if it will ever be as popular as the cystoscope, which almost anybody can make use of, but nevertheless I believe there is a great future in the instrument.

I have been told that the lesions most readily observed are those which are large. It is obvious why that should be. The x-ray is much more valuable in finding small lesions, such as small areas of ulceration. Gross lesions are not demonstrable by x-ray but are by the gastroscope.

In closing I want to say that the men who have used the gastroscope have been tremendously enthusiastic about it and most of those men are like Dr. Browne; they have kept their feet on the ground and are not carried away with enthusiasm which they are going to ride to the crest of the wave and then be submerged. I think the men who use it will appreciate more and more its value and it will have a definite but limited place as one of the instruments of precision that belongs to the specialist.

Dr. A. L. Levin (New Orleans): Modern medical science must recognize two important and reliable methods for diagnosis of gastric disease, x-ray and gastroscopy. Of the two, x-ray should be used in every case; gastroscopy for the present, only in selected cases. In spite of the fact that more than a score of years have passed since gastroscopy by the aid of the flexible tube became a reality, and in spite of the reports in recent medical literature from various parts of the country and abroad, New Orleans, the largest medical center in the South, kept aloof from trying it and remained silent regarding its merit. This may be due to: (a) the expense of the original private investment and even more the delicacy of the mechanism of the instrument necessitating frequent repair, and (b) the education of the public not to look upon gastroscopy as a difficult surgical procedure. The last objection will be overcome when the use of it becomes more universal. Regarding expense, a more liberal attitude should be

taken by institutions toward the gastroscopist and the patient. I feel quite sure that this will be realized in the near future. Dr. Browne deserves a great deal of credit for his courageous step forward.

Regarding the use of the gastroscope we have by now the assurance of expert gastroscopists that, with a little training and care, it is a perfectly safe and easy method. One must learn to distinguish between normal and diseased mucosa and acquire the skill of orientation in the stomach to recognize parts under observation with the gastroscope in various positions.

The endoscopic study of gastric pathology will no doubt be of great benefit to suffering humanity. Our conception regarding gastritis is being changed. It is not possible to differentiate the various types of chronic gastritis except by the use of the gastroscope. I am a great admirer of a good and careful x-ray study of the gastrointestinal tract but occasionally the radiologist fails to recognize gastric carcinoma, the origin of gastric hemorrhage, ulcer on the posterior wall, systemic lues with gastrointestinal manifestations and various forms of gastritis. The very fact that one is enabled to see the natural pathologic lesion inside the stomach and observe later on the process of healing, should cause gastroscopy to be labeled as a worth while diagnostic procedure. If in addition, by its aid, we are probably assured of recognizing early malignancy, this spectacular method with a grain of thrill in it, stands the chance of becoming a routine procedure in modern medicine.

However the beginner must bear in mind the following contraindications for gastroscopy: obstruction of the esophagus, corrosive gastritis, abdominal rigidity due to peritoneal irritation, fever, angina pectoris, dyspnea, cardiac decompensation, various psychoses, scoliosis and kyphosis, and cardiospasm.

Dr. Donovan C. Browne (In conclusion): I wish again to emphasize that the gastroscope is a very valuable adjunct in studies of the stomach. By a closer cooperation between the roentgenologist and the gastroscopist much valuable information may be obtained and both the physician and the patient will profit.

A PRELIMINARY REPORT ON CHAOUL THERAPY

STAKELY HATCHETTE, M. D.

LAKE CHARLES, LA.

The basis of all radiation therapy, no matter whether x-rays or the gamma rays of radium be used, is founded upon the fact that the absorption of radiation by living tissues causes changes in them that may vary in degree anywhere from temporary injury to the tissue cells to cell death. The effects of radiation administered by either of the above agents depend upon several factors such as the total amount of radiation given, the amount and kind of filtration used, the size of the field of administration, the distance between the source of radiation and the tissue irradiated, and the kind of tissue irradiated. If x-rays alone were used, it would be necessary, of course, to consider the amount of kilovoltage used also. It is obvious that a total dosage of radiation may be administered that may vary in degree from having little or no effect on the tissues to causing complete tissue destruction. The work done by Pfahler, Coutard, Quimby, and others has proved that there is a certain amount of recovery of the tissues from the effects of radiation after each treatment is given and, that if a course of treatment be given in fractional doses, a much larger total dosage may be given without permanent injury to the normal, healthy tissues surrounding the field of irradiation.

When small doses are administered at each treatment, and when sufficient rest periods are allowed between consecutive treatments, the total dosage the tissues may stand without damage is many times greater than can be tolerated by one single "massive dose." When deep-seated lesions are treated, and when these lesions are surrounded by normal, healthy tissues through which the radiation must pass, it becomes necessary to modify the beam of radiation in such a way that it does a minimal amount of damage to the healthy tissues, to cause it to penetrate as deeply as necessary, and to obtain as great a transmission of intensity as possible at the required depth. In using radium, this depends upon the amount of radium used, the amount and kind of filtration used, the distance between the radium and the lesion to be treated, the size of the field to be irradiated and the amount of time the radium is to be applied. In using x-rays the factors are similar except that the kilovoltage and milliamperage used must be substituted for the

amount of radium used. It is a well known fact that certain tissues can tolerate considerably more radiation than others, and that tissues of embryonal type tolerate, as a rule, less radiation than normal tissues that may surround them so that the effects of radiation on different tissues in the same field should need no further explanation. The above basic facts are mentioned because it is believed that a thorough understanding of these underlying principles is necessary for the comprehension of any type of radiation therapy. No attempt is made to do other than call attention to these factors because it is assumed that every radiologist is thoroughly familiar with them.

There are certain conditions, however, which are located upon the surface of the skin or some accessible mucous membrane, or which can be made accessible by the surgeon, in which the concern of the radiologist should be directed toward the elimination of the diseased tissue and the attempt to spare the healthy tissue at the base to as great an extent as possible. Lesions of this type should extend only a few centimeters deep and should, as a rule, have no healthy tissue above them that need be spared. As only the healthy tissue underneath the diseased area need be considered in conditions of this kind, it is apparent that efforts should be directed toward trying to obtain the smallest possible radiation intensity in the healthy base, while at the surface and throughout the diseased tissue the dosage of radiation should be as great as possible in an attempt to destroy the affected area. It follows then that radiation therapy of lesions of this type should, contrary to the requirements of deep therapy, give a very heavy surface intensity and yet give a small percentage depth dose.

The radiologic requirements are essentially the same as those possessed by radium, and it was with the idea of obtaining a suitable substitute for radium that contact (Chaoul) x-ray therapy machines were developed. While these machines have not fulfilled all of the uses met by radium because of the relatively large size of the x-ray tube as compared to radium needles or other types of small radium applicators and their resultant inability to reach certain lesions difficult of access, they seem to fulfill the requirements they were designed to meet as well as radium, and they have the additional advantages of being operated with a very simple, uncomplicated technic, of not being nearly so dangerous as radium for the operator to handle, of affording a directional beam of radiation that does not give unwanted radiation to the surrounding healthy tissues that may be excluded from the field of irradiation, of giving the desired amount of radiation in terms of seconds or minutes as compared to the hours or days required by radium, of being less expensive than radium, and of not requiring a heavily protected storage safe. It is obvious that there is less likelihood of one losing an x-ray machine than a radium needle or some other type of small radium container. So, while Chaoul x-ray machines cannot and should not entirely replace radium in the armamentarium of the radiologist, they are a most useful adjunct for radiologic treatment and, where they can be used, are probably preferable to radium.

In the light of work done abroad, principally in Germany where radium is very scarce and very expensive, it may safely be assumed that the results obtained by using radium on superficial or accessible lesions is not due to its short wave length, but rather to the distribution of its dose in the tissues. With this dose distribution in mind it was found necessary to construct x-ray tubes that would give similar distributions of intensity as radium, and to do this it was determined that the x-rays given off by such a tube must be "soft" in nature; that is, long enough so that they might not penetrate the tissues too deeply and yet would produce the desired destructive effects in living cells. It was also found that the inherent filtration in the x-ray tube should be as small as possible in order to permit the passage of as great an amount of x-rays as possible and to have a minimal

effect on the wave lengths produced. To accomplish this it was determined that the correct kilovoltage necessary to produce this type of radiation which approximated the distribution of the gamma rays of radium was between 50 kv. and 60 kv. Kilovoltages less than 50 kv. were found not to penetrate deeply enough in the tissues and to give too small a percentage in the depth dose, while kilovoltages in excess of 60 kv. produced too much penetration and too great a percentage of increase in the depth dose. As is true in the case of radium, it was determined that the less the distance between the source of radiation and the skin, the more rapid was the decline in the depth dosage in the tissues; and the greater the source-skin distance, the greater was the percentage depth dose.

Because of the obvious desirability of a very short target-skin distance for this type of therapy, and because it was impossible to obtain such very short distances with the conventional type x-ray tubes, it was necessary that an entirely new type of x-ray tube be developed for this purpose. This has been accomplished by the construction of shockproof x-ray tubes which allow the target to be brought as close as 18 millimeters from the area to be irradiated. Two such x-ray tubes are made today, one by a German concern, the other by a manufacturer in Holland. Both of these tubes have the required short target-skin distance, and both are so made that they may be inserted into natural cavities in the body such as the mouth, vagina, and rectum, or into wounds laid open by the surgeon in order to treat exposed lesions. One of these tubes is water cooled, the other is cooled by a forced stream of air. The working distances of these tubes will permit of target-skin distances ranging from as close as 18 millimeters up to some six or seven centimeters.

CONDITIONS AMENABLE TO TREATMENT

It may readily be seen that any type of new growth of the skin, the accessible mucous membranes, or those lesions made available by surgical assistance may be successfully treated by means of the Chaoul method if the lesions be of those types that may be successfully treated by means of either x-rays or radium. Such conditions as carcinoma of the skin, lips, tongue, basal cell carcinoma, malignant melanoma, and adenocarcinoma of the secretory glands of the skin have been reported as successfully treated with the Chaoul machine by van der Plaats[1]. He also reports successful results in the treatment of carcinomas of the rectum and in those cases of carcinoma of the cervix uteri where the disease is superficially located. At the present time I am treating a patient who has had a complete hysterectomy but who has a recurrent carcinoma in the cervical stump that was left. This treatment is being administered by means of the Chaoul machine, and I have found it to be a much simpler procedure and considerably less difficult than applications of radium have been in previous patients suffering from the same condition. Excellent results following this type of treatment to such benign conditions as keloids, warts and hemangiomas, as well as certain types of infections such as tonsillitides and iridocyclitides, have also been reported by van der Plaats. Work now in progress by the group[2] at Memorial Hospital in New York City would seem to indicate that there is a probability that such conditions as carcinoma of the stomach, and perhaps of certain other internal organs, may be successfully treated when the organs are exposed surgically.

DOSAGE

The first cases treated by the Chaoul method were all treated by the fractional dose method, the daily doses ranging from 300 to 500 r until total doses of 6000 to 10,000 r were administered. Den Hoed[3] reports giving the entire dose in one treatment with good results. While the results obtained in my office are too recent to draw conclusions, the reactions obtained in the treatment of epitheliomas of the skin, keloids, warts, and hemangiomas have closely paralleled the reactions I have obtained in the treatment of similar conditions by radium. In a few instances I have

given the entire amount of radiation by a single "massive dose" and, while my single dose of 5000 to 7500 r is less than that used by den Hoed, the early results obtained on those patients who have now had time for their lesions to heal have apparently been as good to date as was the case in similar lesions treated by radium in the past. The reactions in these patients have been more severe than in those cases where the fractional method of Chaoul therapy was used but the reactions have been only local and the final results seem to have been the same in both the fractional and massive doses.

SUMMARY

The premises upon which Chaoul therapy are based are as follows:

1. Clinically, there is no difference in the effects of x-rays generated at 50 kv. to 60 kv. and the gamma rays of radium, the important factor being the energy absorbed per cubic centimeter.

2. The surrounding healthy tissue and that at the base of the lesion should be spared irradiation as much as possible in order to facilitate healing.

3. The dose distribution of x-radiation in the tissue when small target-skin distances are used is similar to that obtained by the use of radium on the surface.

4. The doses of x-rays administered should be as high as those used in radium therapy.

5. The high r-output of the x-ray apparatus permits of very rapid administration of the desired dosage.

6. The expense involved in the purchase or use of the apparatus is not as great as that of radium.

REFERENCES

1. van der Plaats, G. J.: Caustiek met Röntgenstralen, haar principes en toespassingen, Nederl. tijdschr. v. geneesk., 79:4612, 1935.

Idem: Die Röntgenkaustik, ihre Grundsätze und ihre Anwendung, Strahlentherapie, 61:84, 1938.

2. Personal communication.

3. den Hoed, H.: Oppervlaktebestraling met weeke Röntgenstrahlen, met zeer kleine Focus-Huidafstand (contact therapie), Nederl. tijdschr. v. geneesk., 81:1302, 1937.

CHRONIC ULCERATIVE COLITIS

A DIAGNOSTIC AND THERAPEUTIC PROBLEM*

A. L. LEVIN, M. D.†

AND

MORRIS SHUSHAN, M. D.†

NEW ORLEANS

The etiology of ulcerative colitis is still an unsolved problem. Many causes have been suggested but no common cause which will explain all cases has ever been found. In that fact, perhaps, lies one of the chief reasons why the treatment of this condition is still unsatisfactory. We cannot expect to formulate a rational plan of therapy for a disease in which the relative importance of primary and secondary causative factors cannot be properly evaluated. In 1933, one of us (A. L. L.)[1] made the statement that chronic ulcerative colitis represented an unknown and inexplicable problem. Because it is still an unknown and inexplicable problem we are making our present report.

It has been variously suggested that ulcerative colitis is of streptococcal origin, is a post-dysenteric state, is an allergic manifestation, is psychogenic in origin, and is a virus-inducted disease. We shall comment briefly upon these various theories.

In 1930 Bargen[2] reported a streptococcus isolated from lesions of ulcerative colitis which he described as a diplostreptococcus. This is undoubtedly a very important observation even though the present weight of bacteriologic evidence is against the concept of the Bargen bacillus as a definite entity. It has by no means been proved that streptococci or their toxins are the primary causative agents which initiate the disease. They should rather be regarded as one of the most important and most frequent secondary invaders which serve to

*Read before the Orleans Parish Medical Society, November 28, 1938.

†From the Departments of Medicine of the School of Medicine and the Graduate School of Medicine of Louisiana State University, and the Touro Infirmary Out-Patient Clinic.

perpetuate changes in the bowel wall. In spite of these facts however, much of the recent progress in the study of this disease may be attributed to the impetus provided by Bargen's researches.

Kessel,[3] after careful study of fermentation reactions of streptococci isolated from the bowel wall, subdivided them into three species, *Str. fecalis, Str. mitis, and Str. salvarius*, and came to the conclusion that the organism described by Bargen may belong to any one of them. In his opinion there seems to be no reason to regard Bargen's diplostreptococcus as essentially different from other types of alpha streptococci commonly recovered from the human alimentary tract.

Paulson,[4] in a study of 14 causes of ulcerative colitis, found as judged by their cultural reactions, no less than 10 different types of streptococci. These organisms as well as similar types isolated from other diseases produced lesions in the bowel wall of rabbits following intravenous inoculation. Mones and Sonjaun[5] were able to isolate streptococci in 30 per cent of their cases of ulcerative colitis, but found them also in 25 per cent of their controls. Using filtrates prepared from cultures obtained from the lesions of ulcerative colitis, they were able to produce bowel lesions in a large percentage of rabbits and dogs. Their findings, however, are no more convincing than the findings of the majority of those who have investigated this special phase of the problem.

It is significant in this connection that the number of cocci in the stools of normal persons can be enormously increased by the use of laxatives. The bloody culture medium afforded organisms in the bowel of patients with ulcerative colitis may conceivably act in two ways, by encouraging the growth of streptococci and by inhibiting the growth and multiplication of other organisms.

The relationship existing between chronic bacillary dysentery and chronic ulcerative colitis is even more difficult to distinguish at the bedside. Certain differences between them, furthermore, remain entirely unexplained. For instance, acute bacillary dysentery begins abruptly, but ulcerative colitis in a large number of cases begins insidiously. Ulcerative colitis is non-infectious, but bacillary dysentery often occurs in epidemic form. Finally, bacillary dysentery is more common during infancy and is distributed approximately equally between the sexes, but ulcerative colitis is a disease of adult life and is far more frequent in women than in men.

Felsen[6, 7] is perhaps the most ardent advocate of the theory that chronic bacillary dysentery blends imperceptibly with chronic ulcerative colitis. He reports seven cases in which, over periods ranging up to one year, acute bacillary dysentery was followed by the typical findings of ulcerative colitis. Many other observers explain the apparent cause and effect relationship on the theory that bacillary dysentery may be an antecedent disease which leaves the bowel wall susceptible to further invasion. Felsen believes that this phase of the problem can be solved by a more careful follow-up of all cases of acute dysentery and a more careful study of atypical cases of ulcerative colitis in the acute stages.

Laboratory studies are not conclusive. Winkelstein,[8, 9] in 11 per cent of his cases of ulcerative colitis, found positive stool cultures for the dysentery bacillus, and a diagnostic blood agglutination in 20 per cent. Mackie,[10] in a controlled study of 83 consecutive cases, found cultural or serologic evidence of bacillary dysentery in 42 per cent. Penner,[11] who mentions that Fletcher and Mackinnon were able to isolate the organism in only 38 per cent of their cases, is one of many to emphasize the technical difficulties which make isolation of the bacillus and demonstration of diagnostic blood agglutination titers rather unsatisfactory methods at best to determine the presence of antecedent or continued infection with this strain.

One could not duplicate these reported results by ordinary studies. Repeated attempts to cultivate the organism are necessary. In one instance, we made cultures for 18 consecutive weeks, the material being

secured through the sigmoidoscope, before the dysentery bacillus could be recovered. It is significant that during the World War only one-third of the cases of dysentery presented positive cultures, and it must be remembered also that the ability to recover the bacillus on culture varies inversely with the length of the disease. Furthermore, many workers agree that a positive agglutination does not necessarily mean infection by this organism, and that a negative report does not exclude the possibility.

More extensive studies in skin sensitivity to the bacillus of dysentery may result in a practical skin test which can be applied to the solution of this problem. We cannot at present accept bacillary dysentery as the etiologic basis of all cases of ulcerative colitis but, on the other hand, there seems little doubt that some cases which are now labeled chronic ulcerative colitis are really the end stage of an antecedent dysenteric infection.

Lups[12] reports that Auba, Schmidt, and Lohrish frequently found eosinophils and Charcot-Leyden crystals in smears from the bowel walls of patients with ulcerative colitis. He does not state what significance these investigators attached to this finding, and many other authors have omitted it from consideration, but that ulcerative colitis is an allergic manifestation, at least in some cases, is now a rather generally accepted theory. Gay,[13] for instance, reports a case in which mucus colitis associated with polyposis of the colon disappeared after proper dietary control, and suggests that the intestinal polyposis which is so common a finding in advanced ulcerative colitis may be compared with nasal polypi. Cave and Mackie,[41] by the use of the test diet method, revealed evidence of food sensitization in 51 per cent of their cases of ulcerative colitis; focal reaction to autogenous vaccines frequently occurred and in their opinion represented sensitization to bacterial protein. Our own experiences, combined with the observations in the literature, have convinced us that every patient with ulcerative colitis should be subjected to a complete allergic survey.

The importance of psychogenic factors, although generally granted, remains a subject for further study. Sullivan[15], in a recent report of 15 cases of ulcerative colitis, found a close relationship between emotional disturbances and the onset of bloody diarrhea. It remains to be determined, however, whether the well defined clinical picture of this disease can be produced by a primary nervous diarrhea associated with secondary bacterial invasion. Regardless of this uncertainty, the mental state of these patients cannot be ignored, for mental as well as physical rest is an important therapeutic measure.

The suggestion of Paulson[16], that ulcerative colitis is a virus-inducted disease, introduces a new etiologic concept. Because some of his patients, both with and without rectal stricture, presented a positive Frei test, he prepared antigens from the ulcerative lesions and obtained suggestive results by intradermal testing. Further refinement in the preparation of the antigens may result in the demonstration of a group of cases of ulcerative colitis which are virus-induced.

PROGNOSIS AND DURATION

The prognosis of ulcerative colitis as based on a survey of the results of treatment is far from hopeful. It is generally agreed that the percentage of patients who are permanently cured and who exhibit no evidence of disabling sequelae is not very large. Marnham (quoted by Bargen)[17] reported 130 cases treated medically during the years 1925-1929 with a mortality of 40 per cent, and 84 patients treated surgically over the same period with a mortality of 44 per cent. The mortality in 120 of the surviving patients who were traced after dismissal from the hospital was 49.2 per cent.

Kiefer[18] found that 45 per cent of 55 patients followed up after discharge exhibited unsatisfactory results from treatment, and Crohn and Rosenak[19], who followed 75 patients from six months to 14 years, found 26 per cent unimproved or dead. At least part of the mortality and of the unsatisfactory results of treatment may be due to the fact that many patients are

prematurely discharged from observation while active intestinal ulceration is still present. Smith[20] reports one such case, in which clinical remission was followed some months later by sudden perforation and prompt death from general peritonitis.

The duration of the disease bears a definite relationship to the results of treatment, and there is no doubt that the ultimate mortality increases greatly after the two-year period. Opinions may differ, but we personally feel that Winkelstein[8] is not far wrong when he says that it is doubtful whether a patient with severe ulcerative colitis of undetermined etiology ever recovers entirely and remains permanently well. The commonest causes of relapse are psychogenic factors, upper respiratory tract infections, failure of the patient to observe the regimen laid down for him, and, possibly, reactivation of foci of infection.

CRITERIA OF DIAGNOSIS

A better understanding of chronic ulcerative colitis and a more critical analysis of the results of therapy would undoubtedly follow if every patient who presented this clinical picture were carefully studied and were classified by universally adopted standards. If proper classification has enhanced our knowledge of heart disease, tuberculosis, and rheumatic diseases, and has thereby improved our therapy, the same line of reasoning should certainly apply to ulcerative colitis. We suggest that three factors be carefully evaluated in each case: The degree of toxicity as determined by the presence of fever, the Schilling count, the sedimentation rate, and constitutional symptoms; the duration, in terms of less than a year, one to two years, and more than two years; and the complications present, chiefly rectal stricture, rectal stenosis, rectal fistula, rectal abscess, intestinal polyposis, and avitaminosis. The results of therapy should be determined with equal care, and the term "cure" should not be employed unless the patient has been observed over a period of several years and has been completely relieved of his symptoms.

All of us in the past have sometimes been guilty of diagnosing and treating chronic ulcerative colitis on the basis of symptomatology and proctoscopic study alone. This is entirely insufficient. Reports of cases which have been completely studied and carefully followed up are not only desirable but absolutely necessary for the full comprehension of this most interesting and serious intestinal disorder.

The minimum requirements for diagnosis seem to us to be: (1) The history, with particular reference to the presence of fever; weight loss in percentage of the usual weight; the character of the rectal discharge; the amount of the blood loss, the presence of pus and mucus and the consistency of the stool; and evidence of deficiency states.

(2) Physical findings, with particular reference to tenderness over the colon.

(3) Rectal examination, with particular reference to narrowing of the bowel, the presence of polypi, and the state of the mucosa.

(4) Proctoscopic study.

(5) Full psychiatric investigation.

(6) An allergic survey, including a skin test, food diary, and trial elimination diets.

(7) X-ray examination of the entire gastrointestinal tract, including the use of a barium enema.

(8) Laboratory tests including:

a. Frei test.
b. Search for *E. histolytica* by direct methods and by cultivation.
c. Agglutination test and culture for bacillary dysentery.
d. Culture from other organisms.
e. Hematologic studies.

The importance of the blood picture in chronic ulcerative colitis cannot be overestimated. The findings have been well presented by Garvin and Bargen[21], who point out that there is almost invariably a hypochromic anemia and that all the factors which tend to produce this type of anemia operate in this disease, chiefly loss of blood, an inadequate intake of iron, and chronic sepsis. Leukocytosis is rarely found in the absence of complications. An extremely

high percentage of non-segmented neutrophils characterizes the active stage of the disease, and the sedimentation rate parallels the Schilling count in its significance. A careful evaluation of these hematologic findings is as valuable in chronic ulcerative colitis as it is in other infectious processes.

THERAPY

There is no standardized plan of treatment for chronic ulcerative colitis. The many remedies which have been proposed deserve further trial in carefully studied, accurately classified, and well followed-up series of cases. At present, however, entire reliance cannot be placed upon any one plan. It seems scarcely necessary to add that the success of treatment depends, to a large extent, upon the time at which the patient is seen. There is, naturally, a more rapid response to therapeutic measures early in the disease than when it has existed for a long period of time and when marked anatomic deformities, alterations of physiologic function, and systemic manifestations have occurred. Rest and some form of dietary regulation still remain the most satisfactory plan of treatment, but other measures which hold some degree of promise may be briefly mentioned.

(1) Bargen's serum and vaccine: No convincing evidence as to the value of this method has yet been presented. The question to be decided is whether such benefit as does accrue from it is inherent or is due to the non-specific foreign protein reaction which it causes. The latter theory seems the more probable since Bargen himself has reported that improvement usually parallels the local or systemic reaction to the serum.

(2) Antidysenteric serum: Opinions as to the value of this method are again widely divided. Favorable results, however, have been reported by Hurst[22] and Winkelstein[8].

(3) Diet: Even though it is generally agreed that dietary control is an important consideration in the treatment of these patients, there is still some discussion as to the type of diet. A high caloric, high vitamin diet, with a low roughage content, is usually advised. A dissenting opinion comes from Burnford (quoted by Bargen)[17], who does not consider roughage harmful and desires the colon to contain soft, pulpy material. Whatever plan of diet is adopted, food allergy should be kept in mind.

(4) Transfusions: There is no doubt that this measure should be used frequently to combat the anemia present. That it may sometimes exert dramatic effects on the course of the disease is attested by Winkelstein[8] and by Manson-Bahr (quoted by Bargen)[17].

(5) Aluminum hydroxide and kaolin: This combination has been employed by Eyerly and Breuhaus[23], who report good results in six patients in whom all other measures had failed. Equal parts of these drugs are used to make up a retention enema (6 to 10 oz.), which is retained as long as possible.

(6) Hyperthermy: Ferguson and his associates[24] report five patients in whom this method brought prompt relief. The Kettering hypertherm was used for a period of two or three hours, three times a week, at a rectal temperature of 104 to 105° F. On the basis of the reported results of therapeutic measures accompanied by febrile reactions this method deserves further trial.

(7) Neoprontosil: Brown, Herrell, and Bargen[25] employed this agent in 16 cases, sometimes in association with other measures with very favorable results. Some of these cases were very severe. Neoprontosil was administered by mouth in doses of 4 to 5.32 grams every 24 hours, over a period of 10 to 14 days, and in some patients 2.64 grams was administered daily for a longer period. The treatment was repeated if indications warranted it, and in two patients the therapy was continued intermittently for a period of 10 months. In contrast to their experiences with sulfanilamide, there were no toxic effects and no fatalities.

(8) Surgery: Chronic ulcerative colitis is not, *per se*, a surgical disease, but no discussion of it would be complete without reference to surgical management. Surgery, however, is always the last resort, and should be employed only on special indica-

tions. Winkelstein[6] summarizes them very well:

a. Perforation.
b. Localized hypertrophic lesions.
c. A rapid, down-hill course in acute cases.
d. Complications in chronic cases such as massive hemorrhage, stricture, polyposis, perirectal sinuses and suppurations, and perisigmoidal suppuration.

We agree with Cave[26] that ileostomy is not curative. It may be life-saving, however, in fulminating cases, in which there is rapid down-hill progress. It carries a high mortality, not in itself but because it is usually done on patients who are poor surgical risks. Partial or complete colectomy would be the ideal surgical method of attack. It has a prohibitive mortality, but in a few cases has resulted in brilliant cures.

CASE REPORTS

Case reports are appended to illustrate various etiologic and therapeutic considerations.

Case 1. V. C., white male, 38 years of age, complained of intermittent diarrhea over a ten year period. The attacks lasted from a few days to several weeks and were aggravated during the summer months. There had been occasional mucus but no blood in the stools. He had two to four liquid or semi-formed movements a day, accompanied by considerable tenesmus, cramp-like pain in the lower abdomen, and much flatus. He complained of occasional dyspeptic symptoms. In 1930 he had been treated for amebiasis, but repeated stool examinations since that time had failed to reveal E. histolytica. His appendix had been removed in 1932. There was no clinical evidence of allergy in the family.

Physical examination was negative except for tenderness over the left colon during attacks of diarrhea. X-ray examination showed considerable spasticity of the descending colon with no loss of haustration. These were the only significant findings.

The patient was lost sight of for some months, and on his return complained of diarrhea for the past two months. Then, for the first time, he told us he had noticed that he had no symptoms as long as he remained on a limited diet. He knew that tomatoes, asparagus, and oranges disagreed with him, that spices definitely caused symptoms, and that beer had apparently been responsible for the last attack.

Tests with food allergens by the scratch and intradermal methods gave positive reactions for garlic, malt, oranges, black pepper, white potatoes, chocolate, corn, pork, asparagus, turnips, and tomatoes. Proctoscopic examination revealed an edematous mucous membrane without ulceration. No exudate was visible but smears were made and stained by Wright's method; no eosinophils were seen.

There has not been sufficient time to institute an adequate dietary trial in this case, but the history of definitely known food disagreements together with positive skin reactions to these allergens leaves little doubt that this is a case of allergic colitis with no other manifestations of allergy. It clearly failed to meet the diagnostic requirements of chronic ulcerative colitis because of the mild symptomatology and the absence of typical proctoscopic and roentgenologic findings. If mucosal relief studies had been made, colonic ulceration might perhaps have been demonstrated. In the past such a case would probably have been classified as irritable colon. It may be that cases of this type will supply the missing link which has been sought for in the etiology of ulcerative colitis; the present condition may be a prelude to this disease.

Case 2. D. G., a negro female, developed diarrhea in 1933. At this time she had nine to twelve bowel movements a day, with blood and mucus in the stools. She was treated with emetine and anayodin after amebae had been found. Two months later abdominal cramps and bloody stools recurred. These symptoms continued over a period of two years and were associated with nausea, dyspeptic symptoms, and a loss of 22 pounds in weight. Proctoscopic examination disclosed a mucosa which was friable and bled easily; many extensive superficial ulcerations were visible. Smears were negative for parasites. Blood study revealed a moderate hypochromic anemia. For the next two years, in spite of numerous therapeutic measures, attacks of the same kind recurred at intervals, and during one of them smears were made from the greenish exudate which covered the mucosa. Eosinophils and erythrocytes were identified with Wright's stain. With careful attention to diet she has remained symptom-free for a year, and the mucosa of the bowel has healed completely. Attempts to add milk and orange juice to the diet, however, always aggravate the symptoms.

The chronicity and severity of the symptoms, in spite of antiamebic therapy, make it clear that in this case, although E. histolytica was identified, it is not the sole cause. The extensive rectal ulceration justifies the diagnosis of chronic ulcerative colitis and the finding of eosinophils in rectal smears plus the history of food disagreements justifies the assumption that food allergy is an etiologic factor.

Case 3. Mrs. L. P., a white female, 22 years of age, developed diarrhea in 1935. There were 12 to 20 watery stools daily, which frequently contained blood and mucus, and at times pure blood was passed. Colicky abdominal pain and tenesmus were very troublesome. There was afternoon fever and a loss of 15 pounds in weight. When the patient was first seen, the spleen was palpable; the rectal mucosa was friable and bled easily, and on proctoscopic examination appeared reddened and edematous.

Blood study disclosed a hypochromic anemia. The stool was negative for parasites and on culture showed no dysentery bacilli. The blood agglutination reaction was strongly positive for B. dysenteriae.

A month after the patient was first seen she developed edema of the lower extremities. She deserted from the hospital a few days later. In August of the same year (1935) she returned with a more marked degree of anemia, some ascites, a daily evening temperature elevation of 100 to 101° F., and a marked aggravation of the diarrhea.

Gastrointestinal series showed a normal stomach and duodenum. In six hours the barium was in the small intestine and in 24 hours it had been completely evacuated. Examination with a barium enema showed complete loss of haustrations throughout the colon, with shortening and rigidity of the wall, and an extensive mottled appearance suggestive of polyposis.

There was gradual improvement of all symptoms following routine therapy plus intradermal injection of Hiss vaccine, and she was perfectly well for a year. In January, 1937, following an attack of influenza, all of the former severe symptoms recurred. Physical examination revealed a considerable degree of tenderness along the colon, and ascites and edema of the lower extremities. Gastric analysis and Wassermann reaction were negative, as was an x-ray examination of the chest. The red count was 3,880,000 and the hemoglobin 55 per cent; the smear showed no achromia. A positive agglutination for B. dysenteriae Flexner was reported at 1:320.

The temperature rose every day to 102 or 103° F. Thrombosed hemorrhoids developed while the patient was under observation, and were followed by a large perirectal abscess which required incision; after a large amount of pus had been evacuated, clinical improvement was rapid and symptoms promptly disappeared.

For the past year this patient has suffered from constipation and abdominal distention, alternating about every two weeks with a brief period of diarrhea, abdominal cramps, and bloody stools. There has been no fever. Her weight has risen from 92 pounds at the time of her discharge from the hospital in 1937 to 142 pounds. The recent diarrheal attacks have frequently followed the eating of fish and shrimp. Close questioning has revealed that this patient suffered from winter hay fever in her childhood and that her father has had hay fever for years.

A recent proctoscopic examination revealed extensive polyposis with a mucoid exudate. The mucosa bled easily on examination. Smears stained by Wright's method showed numerous eosinophils. A complete blood study showed 4,160,000 red blood cells; 79 per cent hemoglobin; 29 per cent lymphocytes, 62 per cent neutrophils, 5 per cent eosinophils, 1 per cent basophils, and 3 per cent monocytes. The Schilling count and sedimentation rate were normal. Examination with a barium enema showed the cecum, ascending colon and transverse colon to be normal. The descending colon and sigmoid showed much narrowing and extensive polyposis throughout.

Scratch and intradermal tests with various foods were all negative, but the patient has been instructed to keep a food diary, so that further studies may be made of the effect of food on her symptoms.

COMMENT

This patient presents the typical clinical picture and course of chronic non-specific ulcerative colitis. The three remissions and the development of edema and ascites attributable to hypoproteinemia are interesting. The second attack was apparently precipitated, as is frequently the case, by an upper respiratory infection. The final remission, we are inclined to believe, was due not so much to therapy as to the perirectal abscess and the associated high fever. The dramatically prompt clinical recovery after this complication suggests the occasional similar effect of foreign protein therapy.

No psychogenic factors could be elicited in the study of this patient. It is impossible to evaluate definitely the role of bacillary dysentery; the positive agglutination for two different strains on two different occasions throws doubt on its cause and importance. It must be remembered, too, that a positive agglutination is little more than suggestive. At present all the evidence points towards food allergy as the cause of this condition. In this case the demonstration of eosinophils from the rectal mucosa should be as diagnostic of allergy as their demonstration in the nasal mucosa or sputum. The positive family history and the antecedent story of a probable allergic rhinitis add to the evidence. There is no

doubt that an allergic investigation upon this patient should have been undertaken much earlier in the course of treatment. The extensive polyposis which she has developed may still require surgical intervention.

Case 4. Mrs. L. W., a white female, 47 years of age, was first seen September 7, 1938. Diarrhea had developed ten months before, while she was living in the Rio Grande Valley. She could recall no precipitating factors. For six months the attacks were intermittent, then they became more severe. When she was first seen she was having 10 to 12 stools every 24 hours. The stools were liquid, had a very offensive odor, contained much mucus, and, on several occasions, streaks of blood. She had lost 31 pounds in weight and had become afraid to eat for fear of aggravating the diarrhea.

Proctoscopic examination revealed marked pathologic changes as high as the sigmoid. The mucous membrane was thickened, edematous, and moderately injected. It was very friable and bled freely on manipulation; numerous petechiae could be seen. There were also many shallow ulcers whose bases were covered by yellowish, purulent exudate. The edges were not undermined or thickened. Smears from these lesions revealed only pus and red cells; no vegetative amebae were identified.

Gastric analysis was normal except for a faint trace of occult blood. Several stool examinations failed to disclose parasites. The first blood agglutination was reported positive for B. dysenteriae Flexner in dilution of 1:120; a subsequent test was negative for the entire dysentery group.

The patient was treated by rest in bed, dietary regulation, iron in the form of Blaud's pills, and kaomagma, (½ oz. every three hours). At the end of the month the stools had been reduced to three or four in the 24 hour period and showed some tendency to formation. Other symptoms were much improved. Proctoscopic examination showed a few ulcerations and petechiae still present, and the bowel wall was very friable. Roentgenologic examination with a barium enema showed marked tubulization, narrowing, and shortening of the entire large bowel, suggestive of chronic ulcerative colitis. A recent culture from the bowel was negative for the bacilli of dysentery. A complete blood study showed 3,215,000 red blood cells; a hematocrit reading of 32.5 per cent; 65 per cent hemoglobin, 4,970 white blood cells; 40 per cent lymphocytes; 7 per cent monocytes; 49 per cent neutrophils; 3 per cent eosinophils; 1 per cent basophils. There were 32 per cent stab forms and 4 per cent juveniles. The red cell sedimentation rate by the Wintrobe method corrected for anemia was 42 mm. in one hour.

At this time the patient was given daily 300 mg. of nicotinic acid by mouth together with a vitamin B extract. Other therapy was continued. At the end of a month the stools numbered two to four per day, were soft, and did not contain blood, mucus, or pus. Her appetite was excellent, and she had gained weight. Proctoscopic examination disclosed an apparently normal rectal mucosa. Rectal smears stained with Wright's stain did not show eosinophils. The hematocrit reading was 33.5 per cent and the sedimentation rate corrected for anemia was 31 mm. per hour. A Schilling hemogram showed 45 per cent lymphocytes, 4 per cent monocytes, 16 per cent segmented neutrophils, 4 per cent eosinophils, 2 per cent basophils, and 29 per cent stab forms.

COMMENT

The findings in this case are typical of chronic ulcerative colitis. The response to therapy has been rather encouraging. The nicotinic acid therapy was associated with gradual rather than dramatic clinical improvement but we still feel that this drug should be more frequently employed, both because of the secondary avitaminosis always present in such cases and because of its effect on the healing of the lesion of the mucous membrane. Psychic trauma may have been of some importance, both in initiating and continuing the disease processes; there was no suspicion of allergy. It is noteworthy that a rapid sedimentation rate and marked Schilling-shift persisted. The repetition of these laboratory tests should prove valuable in indicating when stringent regulations may safely be discontinued.

Case 5. A. W. P., a white male 47 years of age, presented himself with a story of intermittent diarrhea for the past 12 years. In 1926 one episode had lasted for seven months. For the next eight years, there had been occasional episodes lasting only a few days. In 1934 there had been a very serious attack associated with frequent stools containing mucus and blood, abdominal cramps, and a marked loss of weight. In 1936 he had spent several weeks in the hospital and had gradually improved under treatment with dysentery vaccine; the diagnosis at this time was bacillary dysentery, ulcerative colitis, and anemia. After his discharge he continued to improve until the latter part of 1937. Then all of his symptoms gradually grew worse; for months there had been afternoon fever, he had lost a great deal of weight, and there were streaks and clots of blood in the stools.

Physical examination was negative except for marked emaciation, and tenderness over the entire colon. Blood studies showed 2,690,000 red blood cells; 39 per cent hemoglobin; 9,500 leu-

kocytes; 20 per cent lymphocytes; 3 per cent monocytes; 76 per cent neutrophils; and 1 per cent eosinophils. The blood agglutination was reported positive for B. dysenteriae Flexner at 1:1280. Examination with a barium enema showed an advanced colitis with extensive ulceration and polyposis. Other laboratory studies were essentially negative.

After careful preparation ileosigmoidostomy was done. The patient died a few days later.

COMMENT

It seems probable that in this case the etiologic factor was bacillary dysentery. It represents the severe fatal form of the disease. Death followed operation but would certainly have taken place under continued medical treatment. If this patient could have been seen in the early stage of his disease the fatal outcome might, perhaps, have been prevented by long-continued observation and treatment. As we have already pointed out, many patients are dismissed from observation too soon after the onset of a clinical remission and before laboratory findings indicate that the process is quiescent.

SUMMARY AND CONCLUSIONS

1. No single cause of chronic non-specific ulcerative colitis has yet been identified. Bacillary dysentery, food allegry, and possibly some virus are important etiologic factors. The streptococcus probably represents a secondary invader of the bowel wall.

2. A simple method of classification is proposed.

3. The methods by which these cases should be studied are outlined.

4. A search for eosinophils in the rectal exudate should be made in all cases. Their demonstration probably has the same significance as in the nasal secretion in the sputum.

5. Promising therapeutic measures include Bargen's serum, antidysenteric serum, dietary control, transfusions, aluminum hydroxide and kaolin by rectum, fever therapy, and neoprontosil. Surgical measures should be a last resort. The seriousness of this disease makes it imperative that any reasonable new measure should be tried which might bring about a clinical remission.

6. Five cases are reported, three of which suggest a definite causative relationship between food allergy and chronic ulcerative colitis. In one case, nicotinic acid seemed to prove a useful therapeutic adjunct.

REFERENCES

1. Levin, A. L.: The present therapeutic status of chronic ulcerative colitis, Med. J. & Rec., 137:115, 1933.

2. Bargen, J. A.: The Management of Colitis, National Medical Book Co., Inc., Doubleday-Doran, 1935, New York.

3. Kessel, J. F.: A comparison of streptococci from the colon with Bargen's organism, Am. J. Digest. Dis. & Nutrition, 5:281, 1938.

4. Paulson, M.: The present status of idiopathic ulcerative colitis, J. A. M. A., 101:1687, 1933.

5. Mones, G. F., and Sonjaun, P. D.: Diagnosis and medical treatment of ulcerative colitis, Am. J. Digest. Dis. & Nutrition, 4:247, 1937.

6. Felsen, J.: Non-specific ulcerative colitis: Terminal (distal) ileitis and bacillary dysentery, New York State J. Med., 35:576, 1935.

7. Felsen, J.: New clinical concepts of B. dysenteriae: Its relation to non-specific ulcerative colitis; distal ileitis and non-specific granuloma, Am. J. Digest. Dis. & Nutrition, 3:86, 1936.

8. Winkelstein, A.: The etiology and therapy of ulcerative colitis, Am. J. Digest. Dis. & Nutrition, 3:839, 1937.

9. Winkelstein, A., and Herschberger, C.: Studies on relation of non-specific ulcerative colitis to bacillary dysentery with particular reference to dysentery bacteriophage, Am. J. Digest. Dis. & Nutrition, 2:408, 1935.

10. Mackie, T. T.: The relation between bacillary dysentery and ulcerative colitis, South. M. J., 27:492, 1934.

11. Penner, A.: On the possible relation of B. dysenteriae to non-specific ulcerative colitis, Am. J. Digest Dis. & Nutrition, 3:740, 1936.

12. Lups, S.: Vaccine therapy in ulcerative colitis, Am. J. Digest Dis. & Nutrition, 2:62, 1935.

13. Gay, L. P.: Mucous colitis complicated by colonic polyposis, relieved by allergic management, Am. J. Digest Dis. & Nutrition, 3:326, 1936.

14. Cave, H. W., and Mackie, T. T.: Chronic ulcerative colitis, South. M. J., 31:414, 1938.

15. Sullivan, A. J.: Psychogenic factors in ulcerative colitis, Am. J. Digest Dis. & Nutrition, 2:651, 1936.

16. Paulson, M.: A new diagnostic intradermal reaction with bowel antigen, J. A. M. A., 109:1880, 1937.

17. Bargen, J. A.: The medical management of chronic ulcerative colitis, Proc. Roy. Soc. Med., 30:351, 1937.

18. Kiefer, E. D.: Clinical results in the medical treatment of chronic ulcerative colitis, Am. J. Digest Dis. & Nutrition, 3:56, 1936.

19. Crohn, B. B., and Rosenak, B. D.: A follow-up of ulcerative colitis, Am. J. Digest Dis. & Nutrition, 2:343, 1935.

20. Smith, R. M.: Chronic idiopathic ulcerative colitis in children, New England J. Med., 217:541, 1937.

21. Garvin, R. O., and Bargen, A.: The hematologic picture of chronic ulcerative colitis; its relation to prognosis and treatment, Am. J. Med. Sci., 193:744, 1937.

22. Hurst, A. F.: Ulcerative colitis, Guy's Hosp. Rep., 71:26, 1921.

23. Eyerly, J. B., and Breuhaus, H. C.: Treatment of ulcerative colitis with aluminum hydroxide and kaolin, J. A. M. A., 109:191, 1937.

24. Ferguson, L. K., Fetter, F. and Schnabel, T. G.: Artificial fever in the treatment of ulcerative colitis, Am. J. Digest Dis. & Nutrition, 4:487, 1937.

25. Brown, A. E., Herrell, W. E., and Bargen, J. A.: Neoprontosil (oral) in the treatment of chronic ulcerative colitis, Proc. Staff Meet. Mayo Clinic, 13:562, 1938.

26. Cave, H. W.: Surgical treatment of intractable chronic ulcerative colitis, Ann. Surg., 107:806, 1938.

DISCUSSION

Dr. J. T. Nix (New Orleans): To begin with, the surgical phase of chronic ulcerative colitis holds a very important place in treatment at this time. Realizing the small and limited experience that every surgeon has in the treatment of chronic ulcerative colitis and realizing how few times I have been called upon to treat these cases surgically, I thought something was wrong in the way they had been handled, and therefore I resorted to a careful study of the literature.

Dr. Levin quoted in measure from the 1934 Annual of the Mayo Clinic, a review representing a study of ten years of chronic ulcerative colitis. In that time 1,348 cases were treated at the Mayo Clinic. Of these 898 patients, or about 66 per cent, according to the statement of Dr. Bargen, received favorable results and in most instances were cured by medical treatment such as is given to tubercular patients; rest of the part. During the first year 57 patients appeared and 15 per cent were operated on. During the last year of this ten year survey 202 patients were observed but only two were operated upon. This shows how they are getting away from surgical procedures at the Mayo Clinic, less than one per cent having gone to operation during the last year.

The operation described is ileostomy. I saw no description of any attempt to remove the colon. There is another article, however, by Henry Cave, which is most enlightening. He believes that medical cures are extremely small. He believes that the cure of chronic ulcerative colitis is by removal of the section of the bowel which is diseased, not necessarily a total colectomy but partial colectomy. He has had good results in a small series of cases.

I think everyone is agreed that they are not certain as to any specificity of the organism. Surely we do not know etiologic factors entirely producing ulcerative colitis. Complications such as perforation and hemorrhage call for surgical intervention. Surgery at the present time, I think, should not be considered at all until medical treatment has been thoroughly tried. We know that these cases last over a period of several years; however, I do not think surgery should be the last resort. I do think the reason why surgery so often fails is because it is so frequently considered the last resort. I believe, with Cave, that in certain cases a partial colectomy performed, not as a one stage operation, but as Cave suggests, three or four stages, carrying your patient along gradually with transfusions, will give a larger per cent of cures. Cave suggests first an ileostomy. The second operation is the removal of the ascending and transverse colon; and third, completion of the operation with possible removal of the descending colon, sigmoid and rectum, with long intervals between. Transfusions, proper diet, and rest, should supplement the surgery. The treatments recommended in the past by some, appendicostomy and colectomy, I believe are based on false premises, probably because we want the bowel to rest. If surgery at all is offered, it should be an ileostomy. Appendicostomy with sigmoidostomy and irrigation of the bowel sometimes does more harm than good.

In my own personal experience, I have had but two cases. The first was a young man operated on previously at the Mayo Clinic and a cecostomy performed. Progressively he grew worse and after a year landed in New York and there a colostomy was done on the left side, irrigating the bowel. It was hoped that the patient could be cured by irrigation. He drifted South, became penniless, and finally came to see us. This was about eighteen years ago. I felt that the only cure for this man was removal of the colon, although I probably would not have done that if he had not had two fistulous operations in the abdominal wall. First an ileosigmoidostomy was done. The sutures held and a colectomy was performed later. This man was operated on eighteen years ago. I saw him two years ago and today he is a perfect specimen of health. He has gained forty or fifty pounds.

I had another case where I had hoped to do the same thing and on making a large incision I thought the sigmoid would hold. The patient was in poorer physical condition, running a septic temperature. Possibly he might have done better with an ileostomy. At any rate, the patient did well for a few weeks and then died of exhaustion and sepsis. The anastomosis had given way and a local peritonitis was present.

I believe the surgery of chronic ulcerative colitis is based on the following: First, medical treatment should be tried and exhausted, if you will, but do not exhaust the patient. Do not wait too long and employ surgery only as a last resort. If you feel, after you have tried thoroughly and well, the patient can not be cured, I can not see the reason why surgery should not be offered. Appendicostomy and colectomy are of no value. Ileostomy has a definite place, especially if combined with other valuable measures of medical treatment. However, it should not be depended upon alone but should be used only as an adjunct in the treatment. Permanent ileostomy with partial or total colectomy has a definite but small place. Ileostomy, ileosigmoidostomy and partial or complete colectomy should be considered in the serious cases, and each one should be carefully evaluated as to indications for its use.

Ulcerative colitis is definitely, as far as we know up to the present time, a medical problem. I do believe, as in many other medical problems, that surgery has a place, but when you employ surgery do not consider it as a last resort but employ it somewhat earlier than it is now employed.

Dr. G. F. C. Fasting (New Orleans): The bacteriologic problem of ulcerative colitis is one phase of several gastrointestinal diseases most inadequately treated, if at all, in textbooks of

bacteriology and immunology. Some slight satisfaction is derived in many pathologic cases from recovering evidence of the histolytic ameba, tubercle bacilli and members of the bacillary dysentery group; but in only the first mentioned can specific therapy be offered that will insure success.

Evidence is accumulating that the bacillary dysentery group may be one etiology in suspected ulcerative colitis, in the absence of positive visualization through the proctoscope and failures by stool cultures. By development of more sensitive serodiagnosis, and by employing a unique form of immunotherapy, clinical cases have been identified as infected by the Shigella group and also cured. Prior to this development the etiology would have remained non-specific.

To the increasing data on multiplicity of etiology —I hope in the near future to report two cases of paratyphoid etiology—both patients presented extensive ulceration with melena, and both were clinically cured in fourteen days, using only autogenous vaccine, but following principles as mentioned for bacillary dysentery etiology.

In the larger category of non-specific ulcerative colitis are included those reported by Bargen as due to a diplostreptococcus. Bargen's critics are many, and they claim failure in duplicating his findings.

Having personally contributed to the successful serotherapy in more than two hundred cases, identified in Bargen's laboratory as harboring the specific diplococcus, I shall venture some remarks. Bargen's critics, who have isolated diplococci in ulcerative colitis of similar fermentative character, do not give evidence of serologic identity or difference from his strains. Yet Bargen in his laboratory employed agglutination to a higher titer than used for identification of any other microorganism.

Just as for the Salmonella or paratyphoid group, agglutination supersedes fermentative characteristics in identification, so in the streptococcal field we are yielding more to serologic relationships. I believe Bargen made a mistake, for to my knowledge he never published data on serologic specificity.

Bargen's critics do not include in their studies proper evaluation of the successful serotherapy, which has been in operation at the Mayo Clinic since 1928 nor do they give consideration to a most impressive work of T. Cook, who in numerous dogs reproduced the same ulcerative pathology as in man. The results were attained by implanting Bargen's diplococcus into devitalized teeth, the chronic feature was established and animals could be studied with a proctoscope.

A difficulty many investigators face in duplicating Bargen's work is the limited amount of cases that appear to have this etiology. The Mayo Clinic is fortunate in having drawn averages of approximately two hundred of this kind a year. Prorated over the entire United States, we perceive individual difficulty in securing sufficient numbers.

I believe it is necessary to evaluate each case bacteriologically on its own merits, whether we intend to establish additional etiologies or effect cures where so-called secondary invaders may theoretically be dominant. I doubt if we shall be able to determine some of the etiologies by direct experimental route but I believe we can by indirect methods. Furthermore, even if we attain the satisfaction of establishing an etiology, we lack fundamental immunologic guidance to conquer the infection. We shall for some time continue the method of trial and error.

Our information regarding so-called secondary invaders and their acquisition of virulent property is poor. B. coli and Friedländer bacilli, that reveal at time of isolation violent hemolytic properties, come under such consideration.

The presence of fuso-spirochetes is very rarely referred to in the English literature; it is mentioned more frequently in the French literature. Such a case, complicating a Shigella infection, was encountered by me. But for its recognition, clinical cure would have been a failure.

I believe it wiser to assume many bacterial species as potentially capable of giving rise to this disease. We are in need of greater guidance by immuno and chemotherapy to meet any newly discovered-etiology. My remarks are not intended to overlook the role played by foci of infection in the body or the effects of primary malnutrition.

In 1930 physicians became aware of the serum produced by Bargen and the Mayo Clinic had to discontinue its distribution. Many physicians used the serum without going through the necessary laboratory procedure. There is now on the market a preparation which supposedly is Bargen's serum; but I can give no assurance that it works as well as that reported by us.

During the past years many cases of ulcerative colitis that have come to the Mayo Clinic have been identified in their own clinical laboratory. In earlier years this was done by Bargen and assistants. The serum is refined and prepared as needed and given to the patients without loss of potency. I know of acute cases and chronic cases which have been successfully treated with the specific antibody euglobulin—when vaccine and whole serum would fail.

Chronic cases that in times past had responded poorly to specific vaccine (active immunization), responded well after preliminary passive immunization with antibody euglobulin and the administration of specific vaccine.

Dr. Donovan C. Browne (New Orleans): Certainly a disease which carries with it such a mortality as Dr. Levin has stated, should be brought to our attention more often. It is true that we do not encounter this particular disease entity as frequently in this section as is reported elsewhere. I

am sure that a certain number of cases have been overlooked in the past. Certainly it is encouraging that they are coming under the medical direction at an earlier stage than formerly.

A consideration of the etiologic factors as reported in the literature leaves one, more or less, in a confused state and such reports as Mackie's on the allergic factors are most convincing. I can not, however, bring myself in accord with those who hold that it is fundamentally a vitamin deficiency simply because a high caloric and high vitamin diet assists in the recovery of these patients. If this were so ileostomy, I do not feel, would produce the results that I have seen in certain cases. Be what the etiology may, there is a definite pathologic picture in every case. Whether this is the result of secondary infection or not it must be one of the prime factors in considering any plan of therapy, and until this particular pathologic picture is well understood I am sure that a great number of cases will be labeled chronic ulcerative colitis which do not correctly fall in this group. This necessarily follows in any disease in which secondary invaders play a role.

I am, more or less, in accord with the surgical attitude of Dr. Nix. However, it must be remembered that this disease in at least 60 to 70 per cent of the cases starts in the rectum and ascends from this point. Necessarily ileosigmoidostomy would not be at all applicable to this great group. It is true, I believe, that surgery has been delayed too long in many instances and the patient goes to the surgeon having developed many complications and is a poor risk. Some of the best results that I have seen have been those instances in which an ileostomy was performed in the early stages. I do not mean to imply, however, that this radical measure should be taken without a due consideration for, as we all know, this is a disease which has a tendency to remission and may well be managed medically in a great majority of instances.

Dr. A. L. Levin (In conclusion): I want to call your attention to a very serious complication in ulcerative colitis, that is, transformation to a malignant state, especially if polyposis is present. Some polypi probably are malignant. I would like to relate a case which I saw a year ago.

The patient, a young man, had had ulcerative colitis for a period of a year. He was studied in New York and Bargen diplococci were found. Vaccine treatment gave slight relief. Shortly afterwards he came to New Orleans and the troublesome colitis returned. A proctoscopic examination revealed several ulcers and at the edge of the ulcers several polypi. He was admitted to Hotel Dieu. Biopsy specimens were obtained and to our surprise the report came back "adenocarcinoma." This is the earliest case of malignancy of the colon as a result of ulcerative colitis I have ever seen.

The man returned to New York and consulted B. B. Crohn who examined him, sent a specimen to the laboratory and received the same report. The patient was operated on and after four months in the hospital he fully recovered. On his way to Florida for recuperation he came through New Orleans and was very grateful for early recognition of his trouble.

THE COMMON COLD AND INFLUENZA AS VIRUS DISEASES*

ROY H. TURNER, M. D.†

NEW ORLEANS

I shall limit my remarks to a consideration of the viruses as causes of the common cold and influenza, which are unquestionably the most important respiratory diseases in which viruses play a part. During the past ten years, great progress has been made in the understanding of these diseases and hope has been revived that their control is imminent. Several experimenters have shown that bacteria-free filtrates of nasal washings taken from patients suffering with the typical acute common cold, when inoculated intranasally in quarantined subjects, would produce a clinical picture indistinguishable from that of the common cold. Dochez's group[1] in New York has shown this under the most exacting conditions. Furthermore, these filtrates when inoculated into culture media of minced chicken embryo have carried through many subcultures without loss of pathogenicity. Dochez's group has shown that the virus is easily killed by heat and also by oxidation at low temperatures. They have tried to immunize volunteers by subcutaneous injection of these cultures of the virus with disappointing results. They are convinced that the common, mild cold is principally, if not entirely, a virus disease, and that, while the more severe clinical pictures are initiated by the virus, pathogenic bacteria play an important part. They have evidence to show that the virus increases the pathogenicity of some of the

---

*Read before the Orleans Parish Medical Society, January 24, 1938.

†From the Department of Medicine, School of Medicine, Tulane University of Louisiana, New Orleans.

cocci and also enhances their invasiveness, so much so that they have coined the expression that the common cold frequently is the result of a "cooperative undertaking" between virus and bacteria. Studies[2] in isolated communities indicate that pathogenic bacteria may exist in the nasal passages for considerable periods without disease until the virus is introduced.

Greater progress has been made in the study of influenza. The modern period in the study of influenza should date from 1928, when Shope[3] undertook to study a disease of swine common in the Midwest, known there as "hog flu," to which he gave the more polite name of "swine influenza." This disease appeared as an entirely new clinical entity in swine in the late summer of 1918 during the last great pandemic of human influenza. Farmers and veterinarians most familiar with the disease considered it due to the same cause as human influenza. The disease was characterized by occurrence in epidemics with high morbidity, considerable mortality, sudden onset with fever, prostration, discomfort and rapid abdominal breathing. The pathology was strikingly like that of human influenzal pneumonia. Shope found the Pfeiffer bacillus regularly present in the diseased tissues. When this organism was introduced into the nose of a non-immune pig in the first experiment the clinical picture of severe influenza was reproduced, but he was never able successfully to repeat that experiment, so he gave up the idea that the influenza bacillus was the cause of the disease. He then used filtrates of diseased tissues and got exceedingly mild febrile illness in his animals, too mild to be called influenza. However, when the two agents were inoculated together, typical swine influenza resulted regularly, which showed the same contagiousness as the original disease. There seems little doubt that swine influenza is a clinical picture which requires the action of two agents simultaneously, a virus along with the influenza bacillus.

The study of human influenza was given great impetus by the English workers, Smith, Andrewes and Laidlaw,[4] who discovered that ferrets develop a pneumonic disease when inoculated intranasally with filtrates taken from humans suffering with epidemic influenza. Nasopharyngeal washings from living patients, suspensions of human tissue taken at autopsy from fatal cases of influenza, when made bacteria-free, transmitted the infection. For the first time, an experimental animal has been discovered which is susceptible to human influenza. Francis and Shope in this country, as well as one or two other groups, have taken up the use of ferrets in the study of influenza. The human virus has been isolated from almost every corner of the world, and so far appears to be of one strain.* Human volunteers have never been given the disease by the use of the experimental virus, so Koch's postulates are as yet hardly fulfilled. However, several observers have isolated the virus from the nasopharyngeal washings of influenza patients and shown that antibodies were absent in the patient's blood at the time, and that specific antibodies appear with recovery. Well people and those with the common cold yield no such virus, so there seems little doubt that the virus is intimately connected with the etiology of influenza.

Extremely interesting observations have been made on the immune processes with this virus and the virus of swine influenza. After several passages through the ferret, the viruses become pathogenic for mice, where they produce fatal pneumonia, so the mouse is a useful animal for testing serum for antibodies. It has been found in England and in America that most adults have protective antibodies in their blood serum for both the swine and human viruses, but that children below the age of ten rarely have antibodies against the human virus. Adults show antibodies even more commonly for the swine virus than

*Since this paper was prepared, Magill and Francis have presented before the American Society for Clinical Investigation cross immunization studies on 16 strains of influenza virus which show wide differences between strains.

they do for the human. Yet the swine virus has never been isolated from a human source. These facts suggest that the swine virus was formerly the common infection in humans, and that about ten years ago it ceased to cause human disease. Now, it was about twenty years ago that the disease was first noted in swine.[3] The influenza virus is also successfully cultivated in a tissue culture medium. Francis and Magill[5] used such a virus intramuscularly in human volunteers and showed that antibodies to the virus appear in the blood of these subjects. They have not reported protection of these subjects against the clinical disease. Stokes and his co-workers have attempted to protect some of the inmates of a colony in Pennsylvania by beginning the use of live vaccines just at the outbreak of an epidemic of influenza. He used the swine virus in one group and the human virus in another, and left a larger group without vaccination. The development of febrile respiratory infections in the uninoculated and the group which had received the swine virus was about the same, while the group which had received the human virus had less than one-third the morbidity. This demonstration of protection is not as satisfactory as one would wish. The English workers have shown that ferrets recovering from the disease are completely immune for three months, and have partial immunity for another three months. During the second three months they may develop the disease by intranasal inoculation even though they, at that time, have antibodies in their blood stream. Shope showed in swine that inoculation of the virus alone caused immunity to the disease. Inoculation with the *Hemophilus influenzae* alone gave slight immunity. Swine inoculated intranasally with the virus might develop immunity without the appearance of antibodies in the blood, which suggested a barrier in the tissues of the nose without any general humoral immunity being involved. The English workers have developed a potent horse antiserum which confers passive immunity on mice and also aids in the cure of mice when they are sick already with the disease. They point out that their observations deal with influenzal pneumonia, since the disease in mice is essentially a pneumonia, and they believe that the lungs are protected more readily from disease than is the nasal mucosa. It is not known what role *Hemophilus influenzae* plays in the human disease, but since this organism is almost always present in the diseased tissues along with the virus, just as it is in the disease of swine, it seems likely that it may play an important part in the human as in the swine disease.

These new facts about influenza should lead to more accurate diagnosis of the disease. There seems little doubt that many cases now considered as sporadic influenza are due to other causes. The English workers failed to isolate the virus from all the cases of sporadic influenza studied. One of the causes of the conditions now considered as sporadic influenza is, no doubt, sinusitis with few local symptoms.

SUMMARY

The evidence that viruses play a leading role in the causation of both the common cold and influenza has been briefly reviewed.

BIBLIOGRAPHY

1. Dochez, A. R., Mills, K. C., and Kneeland, Y., Jr.: Filtrable viruses in infection of the upper respiratory tract, J. A. M. A., 110:177, 1938.

2. Paul, J. H., and Freese, H. L.: Epidemiological and bacteriological study of "common cold" in an isolated Arctic community (Spitzbergen), Am. J. Hygiene, 17:517, 1933.

3. Shope, R. E.: The influenzas of swine and man, Medicine, 15:453, 1936.

4. Smith, W., Andrewes, C. H., and Laidlaw, P. P.: Virus obtained from influenza patients, Lancet, 2:66, 1933.

5. Francis, T. Jr., and Magill, T. P.: Vaccination of human subjects with virus of human influenza, Proc. Soc. Exper. Biol. & Med., 33:604, 1936.

THE PATHOLOGY OF THE VIRUS DISEASES*

H. J. SCHATTENBERG, M. D.†
NEW ORLEANS

In discussing, in a limited period of time, the pathology of such a large number of diseases as those caused by filtrable viruses

*Read before the Orleans Parish Medical Society, January 24, 1938.

†From the Department of Pathology, Tulane University of Louisiana, New Orleans, La.

it is only possible to mention the main pathologic features of the individual disease entities and treat the group in more or less outline form.

Virus diseases affecting the nervous system will be considered first. These are rabies, epidemic encephalitis and poliomyelitis. Secondly, those involving mainly the skin, subcutaneous tissues, and lymph glands, which include smallpox, molloscum contagiosum, lymphogranuloma inguinale, and herpes. The last group to be discussed covers those diseases which are more or less of a systemic nature and consists of the following: yellow fever, dengue fever, psitticosis, and mumps.

PATHOLOGY OF RABIES

Grossly there is noted congestion and edema of the gray matter of the brain and cord. Microscopically there are noted nerve cell degenerations, accumulations and collars of lymphocytes and plasma cells around the small blood vessels. The presence of Negri bodies is a pathognomonic feature of this disease. These are probably degeneration products of cellular origin and are noted as cell inclusions in the ganglion cells especially of the hippocampus.

EPIDEMIC ENCEPHALITIS

The gross lesions are not characteristic, except for congestion of meninges and brain, and tiny hemorrhages in the base of the fourth ventricle. Microscopically the most striking lesions are the perivascular collars of lymphocytes and plasma cells and small hemorrhages about these vessels in places. The perivascular collars are not pathognomonic as they are also seen in syphilis, poliomyelitis and rabies.

POLIOMYELITIS

In this disease lesions are noted not only for the cord proper but at times also for the medulla, pons and midbrain. Cord lesions are mainly for the lumbar and cervical enlargements. Petechial hemorrhages are seen for the gray matter in early cases. The vessels are surrounded by collars of lymphocytes, and early in the disease neutrophiles are also present. The main lesion is degenerative in character and consists of a more or less complete destruction of the motor cells of the anterior horn. These cells are replaced by astrocytes and there results then a marked gliosis or nervous tissue cicatrization.

SMALLPOX

The papular and vesicular lesions are due to the action of the virus itself; the pustular lesion is mainly due to secondary pyogenic invaders, especially streptococci. The specific virus is epitheliotropic, that is it proliferates in the epithelial cells of the epidermis causing them to swell and liquefy. When lesions are seen for the mucous membranes of the mouth and nose, the histology is the same as for the skin except possibly for more secondary infection. The internal organs usually show toxic changes. The Guarnieri or inclusion bodies, pathognomonic of smallpox, are noted in the swollen epithelial cells. They may represent degeneration products or some odd pleomorphic form of the virus.

MOLLOSCUM CONTAGIOSUM

This is an odd, cutaneous, virus disease especially in children, characterized by small, white, cheesy, raised nodules. Virus stimulation causes hyperplasia of epithelial cells followed by softening and degeneration after which this necrotic mass may be discharged through a crater-like opening on the surface. Important from the standpoint of pathologic diagnosis are the molloscum bodies which represent cell inclusions, have a horny capsule and are filled with enormous numbers of minute granules from which the virus can be isolated.

LYMPHOGRANULOMA INGUINALE

The primary lesion of this disease is a papule or erosion usually on the genitals which heals unnoticed. Weeks later the regional lymph nodes become indurated and painful. Suppuration and sinus formation often occur. Fibrosis, granulation tissue formation and local edema due to lymphatic obstruction are common. Multiple, small, stellate abscesses surrounded by epithelioid, lymphoid and plasma cells are a fairly characteristic picture. Superimposed secondary infection, the frequent combination

of lymphogranuloma inguinale with granuloma inguinale and chancroidal infection, makes this picture so confusing that it is often impossible to make a histopathologic diagnosis. It is then necessary to resort to specific skin tests. This and other features of lymphogranuloma inguinale have been ably discussed in publications by Drs. D'Aunoy and von Haam.

HERPES

The pathology of both types, simplex and zoster, is similar. A deep seated vesicle forms as the result of liquefactive changes in the prickle cells of the skin. In herpes zoster there are noted in addition to the skin lesions degenerative and inflammatory changes in the ganglia and posterior roots of the spinal nerves. Another characteristic feature is the presence of zoster cell inclusion bodies of Lipschutz. These are oval, eosinophilic staining bodies within the disintegrating prickle cells.

DENGUE FEVER

This disease is characterized by a punctate rash, slight generalized lymphadenopathy and slight splenomegaly; otherwise, from a pathologic standpoint, there is nothing worthy of mention.

MUMPS

The parotid gland is acutely swollen, inflamed and there is much serum exudation. There is no suppuration nor necrosis; the gland heals by resolution and is left uninjured. A similar histopathology may in some cases be noted for the testes, ovaries, mammary glands, and even the pancreas.

PSITTICOSIS

This is a disease of parrots, transmissible to man. The important lesions in fatal cases are noted for the lungs in the form of bronchopneumonia. Unlike other pneumonias, wherein the cellular response is neutrophilic, in the psitticosis pneumonia the main cells are of the mononuclear variety. There is very little fibrin formation. A marked thickening of the alveolar walls due to proliferation of the lining epithelium is noted. Inflammation of the pleura in this type of pneumonia is rare.

YELLOW FEVER

The virus of yellow fever attacks especially the capillaries and this explains the gastric hemorrhage and black vomit of this disease. There are petechiae of the epicardium, endocardium, skin and lungs. The kidneys show a marked tubular nephritis. The classical lesion in yellow fever is the "Councilman lesion" in the liver which is a non-inflammatory necrosis involving many liver cells and forming hyaline masses in the cytoplasm. The necroses destroy the bile passages permitting their contents to escape into the circulation and thereby accounting for the intense jaundice. The liver lobule necrosis is the midzonal type. In addition there is much fatty degeneration accounting in part for the yellow color of the organ. Acidophilic cell inclusion bodies have been described in the liver cells in yellow fever.

SUMMARY

The etiologic agents of this group of diseases are ultramicroscopic and filtrable. However, filtrability of a disease agent does not necessarily place it in the category of virus diseases, since some of the well-known bacilli and spirochetes are filtrable. Furthermore, the nature of the virus emulsion, its electric charge or that of the filter alter its filtrability. The presence of more or less definite cellular inclusions is an important feature with regard to virus diseases. Notable examples are the Negri bodies in rabies, Lipschutz bodies in herpes, molluscum bodies in molluscum contagiosum and Guarnieri bodies in smallpox. Besides inclusions, the microscopic changes may be those of local hyperplasia, cellular degenerations or bacteriolysis as in bacteriophagy. In some instances, the primary lesions due to the virus are insignificant, but secondary invaders may cause marked changes. Virus diseases are mainly epitheliotropic (smallpox) or neurotropic (poliomyelitis). The filtrable agents of the viruses occupy a sphere of wide distribution affecting not only man and animals, but also plants, mosaic disease of tobacco for instance, and bacteria in which the micro-organisms are destroyed by the bacteriophage.

MORPHINE:

A DANGEROUS DRUG IN CHRONIC ASTHMA*

RAY M. BALYEAT, M. D.

OKLAHOMA CITY, OKLA.

My experience in the care of asthmatic patients during the last eighteen years leads me to believe that morphine should seldom be used in the treatment of patients suffering from chronic asthma. My conclusions have been based on a critical review of deaths that have occurred among the chronic asthmatic sufferers whom I have had under supervision during this time.

I wish briefly to review the histories of five cases which illustrate the point in question.

CASE REPORT No. 1

This patient was a three year old child who had suffered from periodic attacks of typical asthma since she was six months old. On one occasion she developed a severe asthmatic attack which was accompanied by an acute respiratory infection without fever. The use of adrenalin hypodermatically did not give good results. However, when an asthmatic attack is precipitated by an acute respiratory infection, adrenalin usually will only partially relieve symptoms.

On account of the severity of the attack, the parents asked for a pediatric consultant who advised the giving of 1/12 grain of morphine hypodermatically, and suggested it be repeated in a couple of hours. On account of the symptoms remaining quite severe, the parents asked that I be called. Just as I was leaving to make the trip a telephone call came saying that a second 1/12 grain of morphine had been given with the results that the number of respirations was reduced and the asthmatic symptoms were very much better, but the patient died.

COMMENT

What was the cause of this child's death? Morphine. This little patient had typical asthma. On this occasion the attack was precipitated by an acute respiratory infection. Adrenalin hypodermatically did not give the best results. Nature was continually trying to force the mucus from the bronchial tubes, thereby producing asthmatic symptoms. Although adrenalin did not give complete relief, nature's mechanism should not have been interfered with by the use of morphine. Morphine quieted the number of respirations to a point that the child did not receive sufficient oxygen to sustain life.

CASE REPORT No. 2

W. T., aged 63, had suffered from asthma since a child. During the last ten years his asthma had become rather severe. He gave a history that between periodic attacks of asthma he raised a good deal of purulent secretions. On investigation he was found to be suffering from the tubular type of bronchiectasis. He had a white blood count of 15,700. Allergic studies revealed reactions to Russian thistle and the animal dander group. Desensitizing methods against Russian thistle and house dust were instituted, and iodized oil was used as a mechanical means of keeping the bronchial tubes clean.

During the year I cared for him his progress was very promising. He developed, so far as could be determined from the report given by his wife, an acute cold which involved the bronchial tree, naturally increasing his asthma. (An acute cold will usually materially increase asthmatic symptoms.) Adrenalin hypodermatically or by vapor did not give the desired results. This attack was reasonably severe, and his wife decided the best thing to do was to take him to the hospital, and wrote me concerning his hospital trip as follows: "I brought my husband to the hospital and the doctor gave him a dose of morphine that gave him eternal ease. He will be buried on Tuesday."

COMMENT

What caused this 63-year-old man's death? Morphine. I had reinvestigated this patient's problem only a short time prior to the severe attack during which death occurred. His general condition was good. This man suffered from asthma with a reasonable amount of bronchiectasis. Due to the acute infection, the mucus was adhering tenaciously to the bronchial wall and many of the tubes were entirely filled. Adrenalin did not give the desired results, but nature's effort to expel the mucus should not have been interfered with by a drug which would paralyze the cough reflex. Morphine quieted the respirations to such a point that the patient did not receive sufficient oxygen to carry on the functions of the body. Morphine was the cause of this patient's death.

*Presented before the fifty-ninth annual meeting of the Louisiana State Medical Society at New Orleans, May 3, 1938.

CASE REPORT No. 3

Mrs. J. H. S., aged 42, came to the Clinic suffering from asthma of twenty years' duration. On investigation it was found she had suffered from chronic sinusitis for many years and had had a number of nasal operations. The true asthma and the sinusitis from which she suffered were complicated with bronchiectasis.

She returned home and was doing reasonably well. On one occasion, apparently without a cold, she developed a violent attack of asthma. (This not uncommonly happens in asthma associated with bronchiectasis.) Her family physician was called who declared that on account of the severity of her asthma, she should go into the hospital. He called the hospital and left orders for morphine, ¼ grain, to be given when she arrived. Since her symptoms were severe, he decided, however, to give her ¼ grain of morphine before she left home, but he forgot to countermand the hospital order. On arriving at the hospital, another ¼ grain of morphine was given. The patient died in about ten or fifteen minutes' time.

COMMENT

What caused this 42-year-old patient's death? Morphine. This patient evidently had her bronchial tubes badly filled with infectious material which along with the edema, due to sensitization, precipitated an attack of asthma. The quarter grains of morphine could be tolerated by the average individual without chronic asthma, but this patient's bronchial tubes were filled with mucus, and she was probably breathing forty or fifty times a minute in order to give her sufficient oxygen to sustain life. The two quarter grains of morphine reduced respiration to such a point that she did not have sufficient oxygen to allow life to continue.

CASE REPORT No. 4

Mrs. C. J., aged 74, lived in Oklahoma City and was brought to the Clinic a number of months on account of her chronic asthma. She had been doing very well. From time to time she would have acute upsets in which adrenalin would have to be used. Recently she had a severe attack one night in which adrenalin would not give the best results, and a doctor was called. He said he would use something that would give her relief. He gave her a hypodermic following which she lived only twenty or thirty minutes. The daughter reported it was morphine.

COMMENT

What caused this patient's death? Morphine. In the four cases just reported, it appears that immediate death in each case was due directly to morphine. A fifth case of morphine death among chronic asthmatics has recently occurred, which has impressed me with the dangers of the use of morphine for the relief of paroxysms of asthma.

CASE REPORT No. 5

Mrs. F. C. H., aged 54, had suffered from asthma for twenty-four years. For the first few years of her asthmatic life, symptoms were only moderately severe. During the last ten or twelve years, there have been only a few periods in which she was entirely free from symptoms. Each year she would suffer from four or five violent attacks, which would last from a week to ten days. At the time I first saw her, which was over a year ago, she was raising large quantities of purulent sputum, and adrenalin was being used daily for relief.

Physical examination revealed nothing unusual: blood pressure, 110/80, blood count normal, and general condition appeared fair. Allergic studies showed reactions to ragweed and animal dander groups. We were not able to demonstrate bronchiectatic areas by the use of iodized oil.

Treatment consisted of desensitization with house dust fortified with orris root, three ragweeds, and the use of a vaccine. Iodides by vein and by mouth were prescribed, and the use of a lightweight iodized oil as a mechanical measure for forcing up mucus was given, with the result she lost most of the asthmatic attacks and was comparatively free over a period of months.

During the last eight months, she had two or three upsets in which the paroxysms were moderately severe, but they could be controlled well with the use of adrenalin 1:1000. Recently, following a slight cold, she developed a moderately severe attack of asthma, and 1/6 grain of morphine was given by her family physician, with moderate relief. A few hours later, 1/4 grain of morphine was administered with considerable relief, but resulting in death.

COMMENT

Since this patient lived in another state and was not under my care during the last attack, it is difficult to say definitely what actually happened, but from the history given by the family, I have every reason to believe that morphine was the immediate cause of this patient's death.

DISCUSSION

Chronic asthmatics with or without bronchiectasis, have a tendency to drown in their own secretions. The asthmatic attack is nothing more than nature's means of trying to force out of the small tubes, or bron-

chiectatic areas, the ropy and purulent secretions. Due to the lining of the larger tubes with tenacious secretions, and to the plugging of the bronchioles, the asthmatic person has much difficulty in obtaining a sufficient amount of oxygen; therefore, respiration is frequently increased from the normal 16 to 20, up to 30 or 40 per minute.

Morphine will partially or totally destroy the cough reflex and at the same time, acting centrally on the respiratory center, will materially reduce the number of respirations. Due to the chest pathology, the number of respirations are materially increased so as to give the patient plenty of oxygen, and often when the number is reduced, the amount of oxygen allowed to pass through the heavily lined bronchial tubes is not sufficient to sustain life.

Many physicians do not carry with them adrenalin hydrochloride 1:1000 dilution, but morphine is always in their grip. Therefore, on visiting a patient suffering from an asthmatic paroxysm, morphine would naturally be given. Not uncommonly asthmatic patients who have developed a tolerance to adrenalin are seen. Under such conditions, aminophylline in 7½ grain doses in 20 c.c. normal saline given intravenously should be used, or an equal mixture of ether and olive oil should be given per rectum. Frequently, due to the lack of knowledge of the value of the two procedures mentioned, or due to the inconvenience, morphine is given.

SUMMARY

In the study of the patient with chronic asthma, inquiry is always made concerning various procedures that have been used for temporary relief. I have found that in nearly all patients, during one or more of their severe attacks, morphine has been given for relief. Realizing this fact, and having observed during the last months five of my own cases in which I feel reasonably sure that morphine was the immediate cause of death, I would naturally conclude that in this country there are many deaths each year among the chronic asthmatic population which are due directly to the use of morphine as a palliative measure.

NEW ORLEANS
Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

Joseph A. O'Hara, M. D., Ex-officio

For one year: John A. Lanford, M. D., Secretary.
For two years: Leon J. Menville, M. D., Vice-Chairman.
William H. Perkins, M. D.
For three years: Lucien A. LeDoux, M. D.
William H. Seemann, M. D., Chairman.
(Deceased)

EDITORIAL STAFF

John H. Musser, M. D.....*Editor-in-Chief*
Willard R. Wirth, M. D.....*Editor*
G. C. Anderson, M. D.....*Associate Editor*

COLLABORATORS—COUNCILORS

H. E. Bernadas, M. D.
Daniel N. Silverman, M. D.
C. C. deGravelles, M. D.
M. D. Hargrove, M. D.
J. B. Vaughan, M. D.
Rhett McMahon, M. D.
C. A. Martin, M. D.
W. F. Couvillion, M. D.

Paul T. Talbot, M. D.....*General Manager*

1430 Tulane Avenue

SUBSCRIPTION TERMS: $3.00 per year in advance, postage paid, for the United States; $3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL *does not hold itself responsible for statements made by any contributor.*

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE ANNUAL MEETING

Once again, but for the last time, we are calling attention to the importance of the annual meeting of the Louisiana State Medical Society. We do not wish to harp on this subject unduly but nevertheless we feel definitely that at the meeting this year there should be by all means a large and enthusiastic outpouring of the members of organized medicine in the state. There are grave matters in the not too distant horizon which may affect profoundly and fundamentally the practice of medicine. If we can show by a large attendance that the doctors of the State of Louisiana are interested in the economic problems which beset them, as well as in scientific matters, it will be a positive demonstration to those who might have the audacity to assume that medical men are not interested one way or the other in state medicine, that we are cohesive, that we are working under one banner and that we are against the control of the medical profession by politicians, social workers and the like.

Do make every effort to attend this meeting at Alexandria!

The program is printed elsewhere in the Journal. A perusal of this feast of reason that has been prepared by the chairmen of the different sections will show that the scientific presentations are in every way excellent and well worth while listening to. The men who attend these meetings regularly will go home with new ideas, new thoughts and new plans for the treatment of their patients and their diseases.

HOSPITAL SERVICES IN LOUISIANA

The Hospital Number of the Journal of the American Medical Association presents a tremendous amount of valuable information and informative data. This has to do with the whole United States. In the various groups of statistics, of course, are placed the hospitals of Louisiana. This state, as contrasted with many states, is reasonably well taken care of in so far as general hospitals are concerned. At the present time the general hospital beds are between three and four per 1,000 population. There are a few states which have more hospital beds available per unit of population than Louisiana, but, with the exception of Florida, there is no southern state as amply provided as is Louisiana for the care of the sick. As a matter of fact Georgia, Mississippi, Arkansas and Kentucky have a ratio of only one or two beds

per 1,000 population. It is interesting to note that Louisiana, which stands about midway between the two extremes, has a greater per cent of occupancy of the available beds than any other state in the Union, with the exception of New York which is tied with our state.

Louisiana is well supplied with hospitals. There are 52 with a bed capacity, all told, of 6,827 and into which come somewhat over 179,000 patients a year. There is an ample number of beds apparently for the care of the patients who present the general run of the mine type of disease. On the other hand, the provisions for the care of the tuberculous is woefully inadequate. There are four hospitals devoted to tuberculosis with 337 beds to which 416 patients are admitted every year. The ideal is two beds for each death in the state; satisfactory is one per death. Louisiana has only 0.6 of a bed per death. This number should be doubled. There is listed no maternity hospital as such, but there is one industrial hospital and one hospital devoted to eye, ear, nose and throat disorders. For the nervous and mental cases Louisiana affords six hospitals in which there are 7,318 beds. The beds are filled for the most part steadily through the year but throughout the year there are only 2,698 patients admitted. The turn over here is small.

The two big state hospitals, one in Shreveport and the other in New Orleans, account for a goodly part of the beds available for general medical services. It is interesting to note that the Charity Hospital of New Orleans is one of the largest hospitals in the United States. The Cook County Hospital of Chicago has 3,300 beds and admits something over 75,000 people. Bellevue Hospital in New York has 2,431 beds with slightly over 65,000 admissions. Philadelphia General Hospital has 2,676 beds with only 24,189 patients admitted each year. The Los Angeles County Hospital has 3,154 beds with approximately 50,000 patients entering the institution yearly. These are the four largest hospitals in the country, excluding the Charity Hospital of New Orleans. This institution as it stands at present as officially reported by the American Medical Association, has 1,735 beds but, exclusive of the two hospitals located in the two largest cities in the United States, Charity Hospital admits more patients than any other institution in the country, this number being 55,859. The figures were larger than this prior to moving into the temporary structures that are now being used pending the building of the new institution.

There are more children born in the Charity Hospital than any other institution in the country. Eleven plus babies come into the world every day in this great institution.

The data given above concerning the hospital situation in Louisiana need very little comment. As contrasted with most of the states in the Union we are well stocked with hospital beds. As contrasted with the Southern states the State of Louisiana is very much better equipped to take care of the sick in hospitals than practically any other state south of the Mason and Dixon Line. The new Charity Hospital, when completed, undoubtedly will take care of more people than any hospital in the United States with the possible exception of Cook County. There is need, however, for considerable increase in the number of beds available for the care of the tuberculous patient and for the insane.

ALCOHOLISM AND BENZEDRINE

Amphetamine (benzedrine) sulfate was first utilized in 1935 in the treatment of narcolepsy. During the past four years the drug has been found to be efficacious in other conditions and particularly popular has it become as a general stimulant in people who are depressed and suffering from chronic fatigue states. Once in a while unfortunately there are some individuals whom it over-stimulates, whom it makes nervous and in whom it causes insomnia. One of the side effects that has been discovered in this drug is that it is magnificently effective in relieving the symptoms that come the morning after the night in

which alcohol has been indulged in to excess. Quite a few of those who imbibe at times more than they should have noted that, when taken the next morning, it stimulates them and perks them up to a very high degree. It has also been noted that, if taken at the same time as alcohol, intoxication will not develop as with the same amount of alcohol when taken alone.

Because benzedrine does away with post-alcoholic depression and because it mitigates the intoxicating effect of the drug itself, Bloomberg* has used it in the treatment of chronic alcoholism. He notes that he first warns his patients that alcoholism is a disease and that merely knowing that one ought not to drink is not enough to cure the disease. He stresses the fact that unless the patient desires to stop drinking no one could help him. If he does want to stop drinking and will help himself, the drug will prove to be of great value. He gave to those patients seen in office practice and at the clinic of the Boston City Hospital, some 21 in number, 10 mg. of benzedrine sulfate in tablet form, one to be taken immediately on arising and one at noon. Following these patients at weekly intervals, in some instances it was necessary to increase the amount of the drug and in others to diminish it.

The results obtained in the 21 cases were very satisfactory on the whole. In 14 instances the results were considered entirely successful; patients stopped their drinking habits so they were able to resume their places in the family and business world. In only four cases was there total failure. In 15 of the 21 cases, according to the author, the abstinence period was six times as long as the usual free interval before treatment. Most patients stated they had no desire to drink but they felt alert, energetic and able to face their difficulties so they no longer needed the support of alcohol. Bloomberg concludes that this method of treatment is of value in the instance of chronic alcoholism and that it permits a sufficient interval of sobriety for the institution of more fundamental psychotherapeutic methods.

*Bloomberg, W.: Treatment of chronic alcoholism with amphetamine (benzedrine) sulfate, New England J. Med., 220:130, 1939.

HOSPITAL STAFF TRANSACTIONS AND CLINICAL MEETINGS

HIGHLAND CLINIC
Shreveport

The Staff of the Highland Sanitarium held its regular monthly meeting at 8 p. m., February 16, in the Clinic Building, following dinner at 7 p.m. in the Sanitarium dining room.

The scientific program consisted of a motion picture presentation entitled "Syphilis—A Motion Picture Clinic." This was a sound motion picture film covering all the most important phases of syphilis, its diagnosis, treatment, and control; the leading authorities on syphilis in the United States contributed to its making. All those present apparently were greatly interested in the film.

W. H. Boggs, M. D., Sec.

MERCY HOSPITAL—SONIAT MEMORIAL
New Orleans

The regular monthly meeting of the Mercy Hospital Staff was called to order by the president, Dr. J. J. Irwin, on Wednesday, February 1, at 8:00 p. m.

Dr. C. F. Bellone presented a case report of chorio-epithelioma of the uterus, following hydatidiform mole, with presentation of the microscopic and gross specimens of the pathologic findings. The discussion was opened by Dr. J. F. Dicks who emphasized the fact that hydatidiform moles are frequently followed by chorio-epithelioma and, too, that there is frequent metastasis to the chest. He urged that hysterectomy be done on all patients with hydatidiform mole. Further discussion was offered by Drs. Dean Echols and E. L. Leckert, the discussion being closed by Dr. Bellone.

Mortality investigation of two cases was then taken up. The first was that of a white female child, aged eleven, who died of acute lymphatic leukemia. This was discussed by Drs. Hull, Monte, and DeBakey. The second case was that of a white male, aged sixty-eight, who died of arteriosclerotic heart disease. Discussion followed by Drs. Hull, Monte, Gately, and London.

After the scientific program, there was a short recess, followed by an executive session.

Carroll F. Gelbke, M. D., Sec.

NORTH LOUISIANA SANITARIUM

Shreveport

The regular meeting of the North Louisiana Staff was called to order at 8 p. m. on February 28 by the president, Dr. George Wolfe, Dr. Wolfe announced that appointments to the various committees for the coming year would be made at the next meeting.

The case for the clinico-pathologic conference was that of an 18-year-old boy who, 18 hours before admission to the hospital, was struck by an automobile and rendered unconscious, receiving a fracture of the right leg with contusions to the chest. After about two hours the boy partially regained consciousness and a cast was applied to his leg before bringing him to the hospital. Because of malalignment of the fractured fragments, he was referred to the hospital. On admission, he appeared toxic, semi-conscious, and his pulse, respiration, and temperature were above normal. There was impaired resonance, distant breath sounds, and crepitant and coarse rales over almost the entire lower right lobe. An important laboratory finding was that many fat globules were found in his sputum. His condition steadily grew worse and he died three and one-half days after admission. At autopsy, the diagnosis of fatty embolism of the lung was confirmed. This case was discussed by the entire staff after the history and clinical course were presented.

N. Judson Bender, M. D., Sec.

HUTCHINSON MEMORIAL CLINIC

New Orleans

Scientific Session conducted by the Department of Preventive Medicine, Dr. W. H. Perkins presiding:

Hypogonadism (Dr. Leonard Scott, Department of Preventive Medicine): I selected this case from a number of others (females) because it has been of interest and it is the only one in which I have noted a marked effect from the use of a synthetic hormone. It presents some peculiar works of nature manifested by his growth and development, and I shall present a brief summary of the long history of this case.

The patient is now 24 years of age, and was admitted to the Clinic on March 4, 1938. He has always been small but no special note was taken of his defect until he failed to develop properly at the fourteenth year. Both parents were born in Italy. One grandparent is living at 80; two others died at the age of 85; the fourth died of yellow fever.

There is no history of hereditary defects, giantism, dwarfism, tuberculosis, cancer, diabetes or thyroid disease in the antecedents. One child was born dead before the present one arrived. The patient had an attack of pneumonia when he was one year old. Besides this he passed through chickenpox, mumps, measles, and had an attack of impetigo. In 1934 an appendectomy was performed and he had a testicular transplant made in the same year. This was made in the left lower abdominal quadrant. This patient has been remarkably free from any acute infections with the exception of those mentioned and, aside from the developmental anomalies, he has been in fairly good physical shape most of his life. He has, of course, suffered from depression as the result of his defect, and was at the time of entering the clinic rather hopeless that anything could be done for him. His intelligence is very good, and he has had three years of high school training in which he was quite successful. He is musically inclined and plays on at least two instruments with moderate success. When urged strongly to continue high school he himself was willing, but plans were frustrated by his mother who did not regard further education as a necessity. His father is illiterate but his mother can read and write. His mother is much attached to him and he is to her. He indicated his desire to defer to her in all her wishes. Personally agreeable, he shows outwardly at least no sign of introversion, now that treatment has increased his confidence in himself and made him approximate more nearly to the normal than hitherto.

On physical examination, aside from his youthful appearance, the bodily configuration is the most striking feature of his physical appearance. Although 24 years old he has no vestige of a beard though the hair of the head is very luxuriant. The bodily configuration is feminine in type in so far as the pelvic girdle and the hips are concerned. When he first came to the clinic the genitalia were extremely small, the testicles about the size of small lima beans, soft and retracted. This condition has since been altered. His blood pressure was 100/80. There were no other organic defects detected and his health corroborates the physical findings. The anthropomorphic measurements were: Height 62½"; weight, not given; head circumference 22; neck circumference 11¾; chest circumference 32¾; abdomen circumference 32¼; span 62½; pubic (half height) 34¾.

The laboratory work showed as follows: The urine was negative; the blood count showed slight anemia, 80 per cent; red blood cells 4,000,000; 5,750; blood sugar 87, cholesterol 147, calcium 9.7, phosphorus 4 mg. per cent. Wassermann and Kahn tests were negative. There were no intestinal parasites. A series of five B. M. R.'s was run. These varied from -12 to -32. An x-ray report of February 16, 1938, showed an epiphyseal age of approximately eighteen years with epiphyses at lower ends of tibia, fibula, radius, ulna, metacarpals and phalanges. The sella was normal. Another x-ray report of February 8, 1939, showed that the

developmental age is "believed to be less than twenty years and possibly eighteen or nineteen."

The patient stated that he had received six months' treatment with antuitrin S without visible improvement in his status; so besides thyroid, which was gradually increased to four grains, treatment with testosterone propinate* was begun on May 13, 1938. The thyroid extract did not appear to be effective and the patient of his own accord ceased to take the drug. The effects of the testosterone propinate (25 mg.) were very soon in evidence so that even after the first dose he reported erections on May 18. Suggestion may have played a part. Testosterone has been continued since then with tri-weekly doses of 25 mg. except for a short period between November 8 and November 31, 1938, when it was replaced by antuitrin (whole gland) extract. The latter proved to be ineffective and the patient begged to be treated further with the testosterone salt.

The maximum effect was obtained about September, 1938. Aside from an increase in stature of one inch, that is from 62½ to 63½ in ten months, which can hardly be attributed to the testosterone, the pelvic configuration has snown but little change. However, his muscles have increased in size and consistency and his manner is far more cheerful and aggressive. Subjectively as well as objectively, in so far as the genitalia are concerned, he has been improved. Altogether a total of sixty-seven injections of 25 mg. doses (1.675 gm.) and five 10 mg. doses (0.050 gm.) of testosterone propinate were administered during the period May 13, 1938, to February 23, 1939, that is about nine months. Besides this treatment, sixteen injections, about 1 c.c. each, of antuitrin were given without any effect whatever. It did not replace testosterone. The amount of thyroid is not recorded since it was discontinued without any notice being given. This has been resumed during the past two months, two grains daily being taken.

The results can be considered only fair. The fact that a stationary condition has apparently been reached beyond which no further physical development has been achieved for at least four or five months is not encouraging and does not augur favorably for future improvement, though this is not impossible in so far as growth of the bones is concerned.

The deficiency in testicular development remains approximately stationary and the pelvic configuration has changed but little in spite of the increase in stature and ossification of the epiphyses.

The patient claims that the sense of well-being, increased energy, improved morale, and willingness to face the exigencies of life with confidence are in themselves worth all the trouble and annoyance of the treatment. These subjective manifestations are in accord with his behavior and general appearance.

Student Health Service through the Clinic (Dr. W. H. Perkins, Department of Preventive Medicine): Although the Student Health Service so far as the medical student is concerned is initiated in the Department of Preventive Medicine, the subsequent care of students comes largely under other departments of the clinic. For that reason, we are bringing to you some of the reflections of the care and service they receive through the Department of Preventive Medicine.

There are many reasons for taking the students in this way: First, they require adequate treatment; second, it is a service that goes on indefinitely; third, it is of value to the Freshman students that they pass through all of the requirements of admission to a clinic. They learn what it means to have a registration number, to have a card, to have appointments, and to go through the same procedures as those who will be their patients later. It also gives us a splendid opportunity to present to the Freshmen some of the ethical aspects expected of medical students toward the work which they are undertaking and the responsibility that will be placed upon them. The examinations are made by the Senior medical students, and we insist that this be maintained upon a high basis. The Freshman has little idea how much the Senior student knows. The Seniors in turn are dealing with men of about their own age. They are dealing with variable temperaments in these young men and seeing a type of patient that they would hardly have in practice. We call this Health Service a Periodic Health Examination. Because these students frequently cannot come back for return visits, we have to compromise a little in our study of the individual, particularly in respect to an analysis of his environmental situation. We are primarily interested in maintaining health, pointing out that this is a difficult task, but that there is no greater service than to try to keep a person well. In so far as the discovery of disease is concerned, it is never minimized in making the actual physical examination, but it is just here that we must depart from our ideal. Because the students have a somewhat similar environment as the usual patients, they have more or less similar sociologic factors. It is possible in most instances to determine something of the differences in environment and habits before they come to school. It is still unfortunate that this past picture of their lives cannot be observed further and more accurately. The first thing we are trying to do is to help the Seniors understand the meaning of medical service from its very beginnings, and aid them in the prediction of the medical probabilities in at least the next few years of their lives. We are trying, therefore,

*The testosterone propinate (oreton) was furnished free of charge through the courtesy of Dr. Max Gilbert of the Schering Corporation.

to pick out in the individual cases all of those factors we know to be capable of producing disease, and elicit them in the past and present history of the students. When that is done, and then only, are we prepared to look at the individual from the disease point of view.

I present here a chart which tells much of the obligations imposed on us in determining the medical status of every young man. From 18 to 29 years of age, there are several outstanding disease hazards. Of these, tuberculosis ranks the highest. As a cause of death, tuberculosis claims one-quarter of the young people between these ages; one-fifth of them die from external causes—accidents of childhood, street-car and automobile accidents. Under the complex "Diseases of the Heart" we recognize many etiologic factors: (1) The rheumatic heart, (2) a few syphilitics, (3) a relatively small number of thyrotoxic hearts, and (4) practically none of the so-called degenerative types. Pneumonia ranks equally with diseases of the heart. Three per cent of this age group die from appendicitis. Up to this point in the list we have listed approximately 60 per cent of the causes of death among young people of this age, that is, a relatively few conditions account for considerably more than half the number of deaths.

Our first challenge is to see that every student gives us as far as possible some information about the history of the conditions on that list as they may pertain to him as well as every other condition that we can elicit. We go about this from the etiologic point of view, family history, and so on, so as to determine if the student has been subjected to any of the acknowledged etiologic factors of these conditions. Possibly, 80 per cent of the importance of the examination is in the history; it is not a voluminous history but one of methodical thinking always working forward from effective causes. For this summary, I have taken 400 of the Freshman medical students who have been admitted to the Department of Preventive Medicine.

In regard to tuberculosis, these records indicate that in the instance of 7.8 per cent of these students, there has been an actual case of tuberculosis or a death from tuberculosis in the family, i. e., a person with whom they have lived or with whom they were in contact for a number of years. Almost 8 per cent of them had this more or less prolonged exposure. I believe that it is important to know that a student has been subjected to such a hazard. About 9 per cent had similar contact with non-familial connections, such as playmates. About 2 per cent of them had themselves been told that at one time or another they had tuberculosis; one was of the glands, one of the spine and the remainder pulmonary. Only one of these has fallen into the category of having tuberculosis at the present time. In one-half of one per cent, there was a history in recent years of unexplained hemoptysis either with a single spitting of blood or hemoptysis repeated at least once or twice. No one was able to arrive at a cause of this bleeding.

The figures I give are not of absolute significance. Among the students who have been x-rayed, 3 per cent show x-ray evidence of pleuritis; 6 per cent have localized parenchymal lesions with fibrosis and/or calcification, and the same number were diagnosed as pneumonitis. Finally, in regard to tuberculosis, about 1 per cent have been proved to have active tuberculosis. That does not mean they are active cases in school at the present time; some have dropped out. In school, at present, are four who have been proved to have active tuberculosis. We, therefore, feel that this is a distinct challenge.

In regard to heart conditions, rheumatic fever is the cause of most heart lesions at this age and four, or 1 per cent, of these men reported that they had heart trouble before they came to the medical clinic. Only one gave a history that might be suggestive of rheumatic fever. One was reported to have a definite frank history of the florid type of rheumatic fever. Only one was able to recall that his parents or any member of the family had had rheumatic fever or knew they had rheumatic heart disease. In one case the mother had a history of chorea. We have found none that we could put down definitely as now having a rheumatic heart. Possibly some of the other departments may have seen some among students but it does not appear on the record.

In regard to syphilis, we have had only one admitted who reported that he had a lesion. In time we can go back to the medical records in the academic pre-medical school and see if there were instances recorded by their medical officer but, to date, this is the only case reported.

There have been cardiac irregularities in two, or 0.5 per cent. Three, or 0.8 per cent, were found with suspected organic murmurs.

In this group, a number of students with hypertension were found. These students come to us in a very calm attitude but some few show anxiety. We have always insisted that blood pressure recordings should be taken at repeated readings. About 4 per cent have shown persistent readings with a systolic pressure above 135. Call it high or low, these students are only 22 to 23 years of age and with a persistent reading like that, they bear watching. Probably of little significance but of considerable interest is the fact that 4 per cent of them remembered that their parents had died of hypertensive conditions or had been told they had it by their physicians.

Two per cent of the students have had chronic recurrent appendicitis. Two per cent have had albuminuria and in none of those has the real cause of albuminuria been satisfactorily demonstrated. Consultations have assisted us greatly. Various other tests have been negative and we have not

been able to diagnose actual nephritis in any of them. Only three said that they had had pneumonia and, of those, one reported he had had it five times.

These students have not shown any evidence of malignant tumors. From their own knowledge, 37 of them, or 9.2 per cent, reported that they have had death in their immediate parentage from malignancy. I think that might be of interest to us in further studies. It is higher than the incidence of tuberculosis. We do not know what the other generations showed, but that does seem high for the actual known deaths from these circumstances in these same families. On the same basis, gastric ulcer was known to have existed in four, or only one per cent. In the students it was found in two, or 0.5 per cent.

The analysis so far has covered the incidence of those conditions that account for 60 per cent of the deaths in this age group. Among the miscellaneous conditions that are not such severe hazards for the next five years there were, in the developmental defects, three with pilonidal sinus, one cryptorchidism, one with defect of thumb, one with supernumerary nipples; underweight was marked in seven, or 1.8 per cent; significant overweight was present in six cases, or 1.5 per cent; variocele was found in eight, or two per cent. Twenty-five had upper respiratory infections which required treatment. Among chronic conditions for which they had more or less been under prolonged or persistent care for a number of years, the following were noted: Five with bronchiectasis; ten with gonococcal urethritis; three with hookworm; one with ascariasis; 14 with amebiasis (3.5 per cent); four had recently had malaria. Only one student examined showed glycosuria and he was never shown to have any definite findings of diabetes. Seventeen, or 4.2 per cent, reported asthma and hay fever, while the familial incidence in these same students was eight, or two per cent. Two had unexplained hematuria, for which we were unable to determine the cause. One had mediastinal tumor.

I do not intend to draw any conclusions. The subject is entirely too broad. It was presented because all other departments of the clinic receive these patients in consultations or as transfers and we are urging that this service be expanded as far as possible. I do not think that we are giving enough medical service to these students. Many of them will not and cannot come back to us, due to the pressure of time in their heavy courses, or because they have freedom of choice in selecting their physician.

With expansion of the services of preventive medicine throughout the clinic we anticipate a time when all medical students will receive continuous attention to their state of health in order that it may be maintained or restored to a high level of effective living.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

April 3. Board of Directors, Orleans Parish Medical Society, 8 p. m.

April 4. Eye, Ear, Nose and Throat Hospital Staff, 8 p. m.

April 5. Radio Talk, Orleans Parish Medical Society, WDSU, 9:15 to 9:30 a. m.
Clinico-pathologic Conference, Charity Hospital and L. S. U. Medical Center, 2 p. m.
Hutchinson Memorial Clinic Staff, 8 p. m.

April 6. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
New Orleans Hospital Council, Marine Hospital. Dinner 6 p. m.

April 10. Orleans Parish Medical Society, 8 p. m.

April 11. Eye, Ear, Nose and Throat Club, 8 p. m.

April 12. Radio Talk, Orleans Parish Medical Society, WDSU, 9:15 to 9:30 a. m.
Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
Touro Infirmary Staff, 8 p. m.

April 17. Hotel Dieu Staff, 8 p. m.

April 16. Charity Hospital Medical Staff, 8 p. m.

April 19. Radio Talk, Orleans Parish Medical Society, WDSU, 9:15 to 9:30 a. m.
Clinico-pathologic Conference, Charity Hospital and L. S. U. Medical Center, 2 p. m.

April 20. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.

April 21. I. C. R. R. Hospital Staff, 12 noon.
New Orleans Dispensary Staff, 8 p. m.

April 24-26. Louisiana State Medical Society, Alexandria, Louisiana.

April 25. Baptist Hospital Staff, 8 p. m.

April 26. Radio Talk, Orleans Parish Medical Society, WDSU, 9:15 to 9:30 a. m.
Clinico-pathologic Conference, Charity Hospital and L. S. U. Medical Center, 2 p. m.
French Hospital Staff, 8 p. m.

April 27. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
L. S. U. Faculty Club, 8 p. m.

CHANGE IN TELEPHONE NUMBER

Orleans Parish Medical Society and Louisiana State Medical Society
MAgnolia 3281-2

During the month of March, the society held a joint meeting with the New Orleans Gynecological and Obstetrical Society on March 13. Dr. Charles Galloway, Assistant Professor of Obstetrics and Gynecology at Northwestern University Medical School, Evanston, Illinois, was the guest speaker and presented a paper on "Pathology of the Cervix" illustrated with natural color photography.

At this meeting the society voted favorably on a resolution to have one scientific meeting a month, and that the combined meetings held with the Charity Hospital Staff, the New Orleans Gynecological and Obstetrical Society, the New Orleans Graduate Medical Assembly, and the Chaillé Oration be additional meetings and not to conflict with the regular monthly meetings.

The meeting scheduled for March 27 was dispensed with because of conflict with the meeting of the American College of Physicians.

The following doctors were elected to membership: Active: Drs. Rufus H. Alldredge, Martha W. MacDonald, Lee C. Schlesinger, and Joseph W. Wells. Associate: Dr. George W. McCoy. Intern: Drs. Irving Baer, Woodard D. Beacham, and Emile Maltry, Jr.

NEWS ITEMS

The membership of the Orleans Parish Medical Society turned out in large numbers at the sessions of the meeting of the American College of Physicians.

Dr. Isidore Cohn attended the meeting of the Fracture Committee of the American College of Surgeons in Philadelphia, February 10-11, with Dr. Charles B. Odom as a guest of the committee.

Dr. Roy B. Harrison was installed as President of the Federation of State Medical Boards at the meeting in Chicago, February 13-14.

Dr. Oscar Bethea addressed the Rotary Club, February 23.

Drs. William B. Clark and E. Garland Walls were on the program of the Fifth District Eye, Ear, Nose and Throat Medical Society, Monroe, February 21.

Drs. Alton Ochsner and Rawley M. Penick, Jr., addressed the Charity Hospital Intern Corps, February 28.

Dr. George W. McCoy, recently spent a week in Texas in conection with his studies for the United States Public Health Service on the prevalence and spread of leprosy.

Dr. Daniel N. Silverman gave one of the Max Ballin Annual Memorial Lectures at Detroit, March 8.

Drs. Wiley R. Buffington, Michael E. DeBakey, Mims Gage, Howard Mahorner, and Neal Owens attended the Southeastern Surgical Congress in Atlanta, March 6-8.

Taking part in a Symposium on Recent Advances in Medicine, February 27, before the New Orleans Academy of Sciences, were Drs. Albert E. Casey, Henry Laurens, and Roy H. Turner.

Dr. Rudolph Matas was awarded the officer's cross in the Order of Leopold by King Leopold III of Belgium for his work in promoting and alleviating the horrors of war.

Dr. Maud Loeber was honored by the Quota Club of New Orleans, on February 28, for her attainments in the profession of medicine.

Dr. Neal Owens was made a member of the Founders' Group of the American Board of Plastic Surgery.

Drs. Frank Brostrom and Guy A. Caldwell addressed the Louisiana Society for Crippled Children, March 7.

Dr. Florence Gilpin spoke before the Parent-Teacher Association of McDonogh No. 14 School, March 9.

Dr. Henry J. Lindner talked before the Health Builders' Club on March 14.

Dr. Alton Ochsner conducted a medical institute for the staff of the Valley View Hospital at Ada, Oklahoma, March 13-14.

Drs. D. J. Graubarth, J. W. Reddoch and H. Weinberg spoke to the Young Women's Christian Association during "Health Week," March 13-19, an annual event of this association.

Dr. Julius Lane Wilson talked before the Louisiana Dietetic Association, March 15.

Drs. John A. Lanford, James T. Nix and Alton Ochsner met with the Louisiana State Medical Society Cancer Committee, March 12, in Alexandria at a special called meeting of the Women's Field Army.

Drs. Warren Hebert and Howard Mahorner addressed the Calhoun County Medical Society at Anniston, Alabama, March 21.

Drs. Béla Halpert, Sydney Jacobs and Samuel B. Nadler presented papers before the eighty-sixth annual meeting of the New Orleans Academy of Sciences, March 17-18.

Dr. Martha MacDonald was a guest speaker on March 30 before the Auxiliary of the Milne-Municipal Boys' Home.

Dr. George F. Roeling has been appointed on the neuropsychiatric consultant staff of the Devereux Tutoring School in Berwyn, Pennsylvania.

Dr. John A. Lanford was recently elected to the Board of Directors of the American Society for the Control of Cancer.

Dr. George S. Bel was awarded an honorary fellowship by the Aristides Agramonte Chapter of the Gorgas Medical Society, for "outstanding achievements in the realm of science and his high character as a man."

Dr. William Harvey Perkins was elected vice-president of the Jefferson Medical College Alumni Association to represent the State of Louisiana.

Dr. Carl N. Wahl was appointed instructor in the Department of Surgery at Louisiana State University, School of Medicine.

TREASURER'S REPORT

Actual book balance 1-31-39	$4,911.13
February credits	$1,187.43
Total credits	$6,098.56
February expenditures	$1,375.52
Actual book balance 2-28-39	$4,723.04

LIBRARIAN'S REPORT

During February, 155 volumes have been added to the Library. Of these, 115 were received by gift, 25 by binding and 15 from the New Orleans Medical and Surgical Journal. New titles of recent date are listed below.

The Library has loaned to physicians during February, 800 books and journals. In addition, 1,117 items have been loaned to students for overnight use, making a total of 1,917 for the month.

Members of the staff have collected material on the following subjects during the month:

Abnormalities of the innominate artery.

Heredity and environment.

Mechanics of death.

Pharmacology of sulfanilamide.

Sialography.

Virulence of negro blood.

This notation does not include the great number of questions which are answered at once by consultation of a textbook or by the use of the card catalog.

NEW BOOKS

Collie, Sir John: Fraud in Medico-Legal Practice, 1932.

Creed, R. S.: Reflex Activity of the Spinal Cord, 1932.

Dodge, Raymond: Conditions and Consequences of Human Variability, 1931.

DeLee, J. B., ed.: Yearbook of Obstetrics and Gynecology, 1930-31.

Butler, G. F., ed.: Yearbook of Materia Medica and Therapeutics, 1930-31.

Hrdlicka, Ales: Children Who Run on All Fours, 1931.

Hinsie, L. E.: Treatment of Schizophrenia, 1930.

Heath, Esther: Approach to the Parent, 1933.

Williams, H. S.: Drug Addicts are Human Beings, 1938.

Jacobson, Edmund: You Can Sleep Well, 1938.

Long, W. B.: Handbook of Social Hygiene, 1938.

Young, F. B.: Dr. Bradley Rembers, 1938.

Maxson, L. H.: Spinal Anesthesia, 1938.

Major, R. H.: Classic Descriptions of Disease, 1939.

Berkeley, Sir Comyns, ed.: Midwifery, 1938.

Leder, F. L.: Diseases of the Ear, Nose and Throat, 1938.

Kronfeld, P. C.: Introduction to Ophthalmology, 1938.

Morrison, W. W.: Diseases of the Nose, Throat and Ear, 1938.

Dicks, G. F.: Scarlet Fever, 1938.

Mönnig, H. D.: Veterinary Helminthology and Entomology, 1938.

Thorek, Max: Modern Surgical Technic, 3v., 1938.

Tomblyn, W. F.: These Sixty Years, 1938.

Schöpp, Maximilian: Mitteilungen Eines weiteren Falles von decorticato cordis, 1936.

Gilbert C. Anderson, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

CALENDAR

Louisiana State Medical Society — April 24-26, 1939 — Alexandria.

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
East Baton Rouge	Second Wednesday of every month	Baton Rouge.
East and West Feliciana	First Wednesday in June	Jackson.
Morehouse	Second Tuesday of every month	Bastrop.
Orleans	Second and fourth Monday of every month	New Orleans.
Ouachita	First Thursday of every month	Monroe.
Sabine	First Wednesday of every month	
Second District	Third Thursday of every month	

ALEXANDRIA— IN THE HEART OF LOUISIANA— INVITES ALL MEMBERS OF THE LOUISIANA STATE MEDICAL SOCIETY TO ATTEND THE ANNUAL MEETING

Alexandria is in the heart of the state, with railroads from every direction, and paved highways leading to it from every parish. It is within a few hours drive from every section. Those who cannot be away for more than 12 to 24 hours, can easily drive to Alexandria, attend the day's scientific programs, and drive home by bedtime, a feat that can be done only in a central location such as is Alexandria's. It has the newest and finest hotel in the state.

All meetings are grouped about the Hotel Bentley, and it will be very easy to hear just those papers that one wishes to with little loss of time in traveling from one section to another.

There will be a real old-fashioned barbecue at noon, April 25, and a dance at 10 p. m. Dress as you please, and you will be welcome. Alexandria's prettiest girls will be there to dance with you.

There will be lots of things that you cannot afford to miss, so do not miss them.

Alexandria wants you, and will make you glad you came.

Committees on Arrangements.

P. S.—Bring the wife, too. The Woman's Auxiliary will keep her entertained.

The Louisiana State Medical Society meets in Alexandria, Louisiana, April 24-26. Since Alexandria is centrally located, the largest gathering of physicians in the history of Louisiana is expected.

Medical science has made such great progress in the last few years that no physician can keep up with the strides of progress unless he attends some of the meetings which disseminate information. A great program has been arranged for the three days. There will be many scientific papers and there will be much said about the recent advances in chemotherapy.

A nice program of entertainment has been arranged so as to provide spice and variety. There will be a number of exhibits for those who wish to see things new.

If you have not made hotel reservation communicate with Dr. L. D. Gremillion, or direct with the hotels.

H. O. Barker, M. D.,
Chairman, Publicity Committee.

SCIENTIFIC PROGRAM
SECTION ON BACTERIOLOGY AND PATHOLOGY

Dr. George H. Hauser, Chairman
New Orleans

1. Some Observations on Viruses—Dr. J. Rigney D'Aunoy, New Orleans.
   To open discussion—Dr. L. A. Hebert, Lake Charles.
2. Endometrial Changes and Their Relation to Ovarian Dysfunction—Dr. J. R. Kriz and Dr. H. J. Schattenberg, New Orleans.
   To open discussion—Dr. John S. Couret, New Orleans.
   Followed by—Dr. John A. Lanford, New Orleans.
3. Schistosomiasis with Report of a Case—Dr. George H. Hauser, New Orleans.
   To open discussion—Dr. W. R. Mathews, Shreveport.

SECTION ON EYE, EAR, NOSE AND THROAT

Dr. H. Ashton Thomas, Chairman
New Orleans

1. The Mode of Action of X-ray in Otitis Media—Dr. L. L. Titche, Monroe.
   To open discussion—Dr. F. C. Bennett, Monroe.

2. The Twisted Nose—Dr. Waldemar R. Metz, New Orleans.
   To open discussion—Dr. Charles L. Cox, New Orleans.
3. Cataract—Dr. George M. Haik, New Orleans.
   To open dicsussion—Dr. T. J. Dimitry, New Orleans.
4. Fractures of the Malar Bone with Eye, Ear, Nose and Throat Complications—Dr. Monte F. Meyer, New Orleans.
   To open discussion—Dr. James T. Nix, New Orleans.
5. The Eye and Its Care—Dr. Leon F. Gray, Shreveport.

SECTION ON GASTRO-ENTEROLOGY

Dr. D. C. Browne, Chairman
New Orleans

1. Hepatitis: Its Etiology, Diagnosis and Treatment—Dr. Sidney A. Portis, Chicago.
   To open discussion—Dr. D. N. Silverman, New Orleans.
   Followed by—Dr. Allan Eustis, New Orleans.
2. The Symptoms, Diagnosis and Treatment of Pellagra with Special Reference to the Use of Nicotinic Acid—Dr. J. Preston Davis, Lake Providence.
   To open discussion—Dr. D. B. Barber, Alexandria.
   Followed by—Dr. Louis Ochs, New Orleans.

SECTION ON GENERAL SURGERY

Dr. R. O. Simmons, Chairman
Alexandria

1. The Use of an Anatomicophysiologic Incision in Appendicitis—Dr. H. S. Coon, Monroe.
   To open discussion—Dr. D. B. Barber, Alexandria.
2. Some Problems in the Surgical Treatment of Thyroid Disease—Dr. J. E. Heard, Shreveport.
   To open discussion—Dr. P. D. Abramson, Shreveport.
3. Treatment of Acute Empyema—Dr. Rawley M. Penick, Jr., New Orleans.
   To open discussion—Dr. Mims Gage, New Orleans.
4. The Diagnosis and Treatment of Osteomyelitis of the Neck of the Femur—Dr. Walter Moss, Lake Charles.
   To open discussion—Dr. Ambrose H. Storck, New Orleans.
5. Perforated Peptic Ulcer: An Analysis of 195 Cases—Dr. Charles B. Odom and Dr. Michael DeBakey, New Orleans.
   To open discussion—Dr. Alton Ochsner, New Orleans.
6. Peritendinitis Calcarea—Dr. Sidney M. Copland and Dr. Marshall L. Michel, Jr., New Orleans.
   To open discussion—Dr. M. E. DeBakey, New Orleans.
7. The Symptoms and Diagnosis of Carcinoma of the Rectum—Dr. Warren H. Hebert, New Orleans.
   To open discussion—Dr. John G. Snelling, Monroe.

SECTION ON GYNECOLOGY AND OBSTETRICS

Dr. W. L. Bendel, Chairman
Monroe

1. Methods Used in the Induction of Labor—Dr. M. B. Pearce, Alexandria.
   To open discussion—Dr. E. L. King, New Orleans.
   Followed by—Dr. W. L. Bendel, Monroe.
2. Consideration of Carcinoma of the Uterus—Dr. James C. Masson, Rochester, Minnesota.
   To open discussion—Dr. Peter Graffagnino, New Orleans.
   Followed by—Dr. George W. Wright, Monroe.
   Followed by—Dr. D. C. McBride, Alexandria.
3. Extra-uterine Pregnancy—Dr. C. P. Gray, Sr., and Dr. C. P. Gray, Jr., Monroe.
   To open discussion—Dr. Hilliard Miller, New Orleans.
   Followed by—Dr. King Rand, Alexandria.
4. The Delivery of the Breech (Moving Pictures)—Dr. George Mayer, New Orleans.
   To open discussion—Dr. Rhett McMahon, Baton Rouge.
   Followed by—Dr. Curtis H. Tyrone, New Orleans.
   Followed by—Dr. J. T. Cappel, Alexandria.

SECTION ON MEDICINE AND THERAPEUTICS

Dr. C. J. Tripoli, Chairman
New Orleans

1. Concepts of the Treatment of Hypertension—Dr. I. L. Robbins, New Orleans.
   To open discussion—Dr. Edgar Hull, New Orleans.
   Followed by—Dr. Chaille Jamison, New Orleans.
2. Cor Pulmonale—Dr. B. R. Heninger, New Orleans.
   To open discussion—Dr. J. E. Knighton, Sr., Shreveport.
3. Dispensary Service for the Tuberculous—Dr. Sydney Jacobs, New Orleans.
   To open discussion—Dr. J. H. Musser, New Orleans.
   Followed by—Dr. A. J. Hockett, New Orleans.
4. Dissecting Aneurysms—Dr. M. D. Hargrove, Shreveport.
   To open discussion—Dr. J. H. Musser, New Orleans.
   Followed by—Dr. W. R. Mathews, Shreveport.

5. The Use of Theophylline Ethylenediamine (Aminophylline) in Bronchial Asthma—Dr. B. G. Efron and Dr. Peter Everett, New Orleans.
   To open discussion—Dr. J. H. Musser, New Orleans.
6. Diagnostic Survey of the Allergic Patient—Dr. N. K. Edrington, New Orleans.
   To open discussion—Dr. W. H. Browning, Shreveport.
   Followed by—Dr. Allan Eustis, New Orleans.
7. The Incidence of Peptic Ulcer in the Negro—Dr. Maurice Campagna, New Orleans.
   To open discussion—Dr. Chaille Jamison, New Orleans.
   Followed by—Dr. M. E. DeBakey, New Orleans.

SECTION ON NERVOUS DISEASES
Dr. S. J. Phillips, Chairman
Pineville

1. Mistakes Commonly Made in the Treatment of Syphilis of the Nervous System—Dr. C. S. Holbrook, New Orleans.
   To open discussion—Dr. E. McC. Connely, New Orleans.
   Followed by—Dr. C. S. Miller, Jackson.
2. Emotional Factors in Disease—Dr. T. A. Watters, New Orleans.
   To open discussion—Dr. M. S. Freiman, Pineville.
3. Metrazol Therapy in Psychotic Excitements—Dr. Dean H. Duncan, Shreveport, and Dr. E. N. Carmouche, Pineville.

SECTION ON ORTHOPEDIC SURGERY
Dr. H. T. Simon, Chairman
New Orleans

1. Scoliosis: Its Prognosis and Treatment—Dr. H. A. Durham, Shreveport.
   To open discussion—Dr. A. Scott Hamilton, Monroe.
2. The More Common Fractures of the Bones of the Hand (Lantern Slides)—Dr. Albert A. Tisdale, Lafayette.
   To open discussion—Dr. Guy A. Caldwell, New Orleans.

SECTION ON PEDIATRICS
Dr. E. A. Socola, Chairman
New Orleans

1. Technical and Practical Aspects of Milk Control—Dr. P. S. Parrino, Franklin.
   To open discussion—Dr. Maud Loeber, New Orleans.
2. Milk in Its Relation to the Public Health—Dr. Robert A. Strong, New Orleans.
   To open discussion—Dr. R. E. de la Houssaye, New Orleans.
   Followed by—Dr. Julian Graubarth, New Orleans.
3. Convalescent Serum in Treatment of Common Contagious Diseases of Childhood—Dr. R. T. Lucas, Shreveport.
   To open discussion—Dr. H. Aubrey White, Alexandria.
   Followed by—Dr. Robert A. Strong, New Orleans.

SECTION ON PUBLIC HEALTH AND SANITATION
Dr. W. J. Sandidge, Chairman
Shreveport

1. The Present Concept of Cancer—Dr. James T. Nix, New Orleans.
2. Undulant Fever: A Problem in Every Physician's Practice—Dr. W. H. Browning, Shreveport.
   To open discussion—Dr. M. B. Pearce, Alexandria.
3. Public Health Aspects of the Syphilitic Patient—Dr. A. L. Adam, Shreveport.
   To open discussion—Dr. D. T. Milam, Monroe.
4. Pneumococcus Pneumonia: Treatment with Type Specific Serum—Dr. Claude D. Head, Jr., New Orleans.

SECTION ON RADIOLOGY
Dr. L. J. Williams, Chairman
Baton Rouge

1. Irradiation Therapy in Endocrine Dysfunction—Dr. J. N. Ané and Dr. Leon J. Menville, New Orleans.
   To open discussion—Dr. L. J. Williams, Baton Rouge.
   Followed by—Dr. C. P. Rutledge, Shreveport.
2. Radiology versus Pseudo-radiology—Dr. Stakely Hatchette, Lake Charles.
   To open discussion—Dr. S. C. Barrow, Shreveport.
   Followed by—Dr. Walter Moss, Lake Charles.
   Followed by—Dr. J. H. Musser, New Orleans.
3. Radium Treatment of Hemangiomata, (Lantern Slides)—Dr. W. R. Harwell, Shreveport.
   To open discussion—Dr. C. P. Rutledge, Shreveport.

SECTION ON UROLOGY
Dr. J. G. Menville, Chairman
New Orleans

1. The Management of Urinary Infections during Pregnancy—Dr. U. S. Hargrove, Baton Rouge.
   To open discussion—Dr. W. E. Kittredge, New Orleans.
   Followed by—Dr. W. H. Cook, Baton Rouge.
2. The Diagnosis and Treatment of Urinary Infections in Children—Dr. J. D. Youman, Shreveport.

To open discussion—Dr. Hugh T. Beacham, New Orleans.

Followed by—Dr. S. George Wolfe, Shreveport.

THE PRESIDENT

Joseph A. O'Hara was born in New Orleans, 1869, son of Joseph and Anna (Norris) O'Hara. He was educated at the Jesuits High School and Tulane University, graduating from this institution in 1900. Dr. O'Hara enjoyed an active practice in medicine in New Orleans for many years. In addition to these professional duties, he was coroner of the parish from 1904 to 1920. In 1928 Dr. O'Hara was appointed President of the Louisiana State Board of Health, a position which he holds at the present time and which he fills with honor and distinction. Dr. O'Hara's interest in medicine began before he entered medical school. He was active in the campaigns against yellow fever from 1897 to 1905, and was President of the Screening Project against Mosquitoes in the Tenth Ward. During the World War, he worked with the Draft Boards of the city.

Dr. O'Hara is one of the outstanding health officers in the United States. He has been most active in maintaining public health standards in the State of Louisiana and in advancing preventive medicine. His accomplishments as a state officer of health are numerous and invaluable to the health of the citizens of the state. He is a sponsor of the Universal Standard Laws for the Rigid Enforcement of Traffic Regulations in the State of Louisiana and President of the Louisiana State Tuberculosis Commission. He holds membership in many national societies including the American Medical Association, Southern Medical Association, American Society of Advanced Sciences, American Public Health Association, American Psychiatric Association, International Society of Health Officers, and Conference of State and Territorial Health Officers.

The State Society is fortunate in having as their executive officer a man who is not only distinguished for his charming personality, but one who is interested as well in the individual physician and in the problems which he has to meet.

THIRD DISTRICT MEDICAL SOCIETY

The regular quarterly meeting of the Third District Medical Society was held at the home of Dr. S. D. Yongue, Breaux Bridge, at 7:30 p. m., Thursday, March 16. Dr. W. J. Yongue, president, presided.

Two papers were presented on the scientific program: "Incidence of Neurosyphilis in Previously Treated Cases of Syphilis" by Dr. Louie G. Martin, of Hot Springs, Ark.; "Immediate and Late Care of Burns" by Dr. Neal Owens, of New Orleans.

R. Sidney Hernandez, M. D., Sec.

OUACHITA PARISH MEDICAL SOCIETY

The regular monthly meeting was called to order on March 2 at 7:30 p. m. by Dr. John Pracher, president.

The first paper on "Atypical Ectopic Pregnancy" was presented by Dr. C. P. Gray, Jr., and discussed by Drs. Wood, and Gray, Sr. The second paper was on "Pneumoarthrography of the Knee" by Dr. A. Scott Hamilton. This was well illustrated by lantern slides. Discussion of the paper was opened by Dr. Gray, Sr.

A letter was read from Mrs. Mary Lou Shaughnessy in regard to the reporting of births and deaths to the Bureau of Vital Statistics. A letter from Dr. Talbot regarding the amendments to be presented at the State Convention was also read.

General discussion of the entertainment to be given the Auxiliary took place, and the Entertainment Committee was requested to report at the next meeting.

Dr. Gray, Sr., and Dr. Hamilton then discussed the question of placing journals in a section of the Public Library and the binding of these journals. This matter was tabled for discussion at a future time.

L. L. Titche, M. D., Sec.

POINTE COUPEE PARISH MEDICAL SOCIETY

The second quarterly meeting of the Pointe Coupee Parish Medical Society was held at New

Roads, Tuesday, March 7. In the absence of the speaker of the evening, a round table discussion was conducted, concerning public health work in general and venereal disease control in particular.

Dentists of the parish attended the meeting as guests of the society. Those present were entertained by Dr. E. G. Durel at supper.

Several small items of official business were transacted, after which the meeting adjourned.

E. G. Durel, M. D., Sec.

FRANKLIN PARISH MEDICAL SOCIETY

A regular meeting of the Franklin Parish Medical Society was held at the American Legion Hall, Winnsboro, on March 8, presided over by Dr. H. T. Rogers, president.

After the usual order of business, a paper was read by Dr. M. W. Hunter, of Monroe, on "Coronary Occlusion"; there was also a paper by Dr. R. Alec Brown, of New Orleans, on "The Treatment Aspects of Tuberculosis." Both papers were freely discussed by the membership.

Dr. Marvyn Johnson, of Monroe, made a talk in the interest of the Fifth District Medical Society, and Dr. C. P. Gray, of Monroe, stressed the need of membership in the State Society.

Dr. H. T. Rogers was elected delegate to the State Convention, and Dr. R. E. Applewhite alternate delegate.

R. E. Applewhite, M. D., Sec.

BOSSIER PARISH MEDICAL SOCIETY

At a meeting held in Benton, February 7, the following officers were elected for the year 1939: Dr. W. F. Bell, Plain Dealing, president; Dr. D. C. McCuller, Bossier City, vice-president and delegate; Dr. Thomas B. White, Plain Dealing, secretary-treasurer and alternate delegate.

John B. Hall, M. D., Sec.

IBERIA PARISH MEDICAL SOCIETY OFFICERS, 1939

President: Dr. L. M. Villien, Jeanerette.

Vice-President: Dr. H. M. Flory, New Iberia.

Secretary-Treasurer: Dr. B. L. Stinson, New Iberia.

Delegate: Dr. W. P. Tilly, New Iberia.

Alternate: Dr. E. T. Duncan, Weeks.

ST. LANDRY PARISH MEDICAL SOCIETY

At a regular meeting of the St. Landry Parish Medical Society held in Opelousas, February 9, the following officers were elected: Drs. W. C. Littell, Opelousas, president; C. W. Lewis, Eunice, vice-president; Franklin V. Boyd, Opelousas, secretary-treasurer; Fred J. Mayer, Opelousas, delegate; A. B. Pavy, Opelousas, alternate.

Drs. Littell and Boyd were appointed counselors to the Woman's Auxiliary to the St. Landry Parish Medical Society.

Franklin V. Boyd, M. D., Sec.

MONROE EYE, EAR, NOSE AND THROAT MEDICAL SOCIETY

On January 21, the men doing eye, ear, nose and throat work in Monroe met for the purpose of organizing the Monroe Eye, Ear, Nose and Throat Medical Society. The following officers were elected: Drs. W. Marvyn Johnson, president; F. C. Bennett, vice-president; C. B. Flinn, secretary-treasurer.

Drs. William B. Clark and E. Garland Walls were guest speakers before the Monroe Eye, Ear, Nose and Throat Medical Society, February 21.

NEW ORLEANS ACADEMY OF SCIENCES

The eighty-sixth annual meeting of the New Orleans Academy of Sciences was held at Tulane University, March 17 and 18. Among those appearing on the program of the Section on Medical Sciences, Section D, were Drs. Sydney Jacobs, Samuel B. Nadler, Béla Halpert, Julius L. Wilson, and Julius Bauer.

GASTRO-ENTEROLOGICAL ASSOCIATION

There was a meeting of the National Gastro-enterological Association and the Marine Hospital staff at the Marine Hospital on Thursday, March 9, at 8 p. m. Papers were presented by Drs. Julius Bauer, Alton Ochsner, Isidore Cohn, and W. L. Smith.

P. L. Querens, M. D., Sec.

AMERICAN BOARD OF INTERNAL MEDICINE, INC.

Written examinations for certification by the American Board of Internal Medicine will be held in various sections of the United States on the third Monday in October and the third Monday in February.

Formal application must be received by the Secretary before August 20, 1939 for the October 16, 1939 examination, and on or before January 1 for the February 19, 1940 examination.

Application forms may be obtained from Dr. William S. Middleton, Secretary-Treasurer, 1301 University Avenue, Madison, Wisconsin.

NATIONAL TUBERCULOSIS ASSOCIATION

The thirty-fifth annual meeting of this great national organization will be held in Boston, June 26-29. A truly edifying program of clinico-pathologic conferences, clinics, essays, symposia and section work has been arranged by the committee in charge.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Application for admission to the Group A, May 1939, Board examinations must be on file in the secretary's office not later than March 15, 1939.

Candidates for re-examination in Part II

(Groups A and B), must request such re-examination by writing the secretary's office before March 15, 1939. Candidates who are required to take re-examinations must do so before the expiration of three years from the date of their first examination.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

FOLDER ON SYPHILIS

The United States Public Service announces that a companion folder to "Syphilis—Its Cause, Its Spread, Its Cure" has been published of which more than 800,000 copies have been sold. This is entitled "Syphilis and Your Town" and outlines the essential points of a community control program. Copies may be obtained from the Superintendent of Documents, Washington, D. C., for one dollar per hundred copies.

AMERICAN COLLEGE OF PHYSICIANS

The American College of Physicians met in New Orleans, March 27-31, 1939. There was a large registration and the meeting was a success in every way.

AMERICAN HEART ASSOCIATION, INC.

The fourteenth scientific sessions of the association will be held at the Hotel Jefferson, St. Louis, Missouri. The general cardiac program will be given on Friday, May 12, and the program of the Section for the Study of the Peripheral Circulation on Saturday, May 13.

MEDICAL MILITARY COURSE AT TULANE

The Medical Military Training Course will be held at Tulane University from April 11 to 22. This course is under the auspices of the Medical Corps of the United States Army and the Department of Graduate Medical Studies of the Tulane Medical School. A most attractive series of lectures has been arranged for the officers and members of the Medical Department of the Army.

Last year this course of one week met with such enthusiasm that it was necessary to make a request for the course to be enlarged to two weeks. Medical Reserve Officers attending this course will receive credit for it.

INTERNSHIP

The California State Personnel Board is anxious to recruit the best qualified persons for Student Intern and Senior Intern. To accomplish this we ask your help in publicizing civil service examinations for these positions.

There is no residence requirement for these examinations and no written test will be given. Applicants will be rated on education, experience and appraisal of scholastic record. Applications may be filed at any time during 1939 and will be rated immediately. If a candidate's qualifications, after investigation, are acceptable, his name will be placed on the list of those eligible for employment in accordance with his rating.

The sixty-eighth annual meeting of the American Public Health Association will be held in Pittsburgh, October 17-20, 1939, with headquarters at the William Penn Hotel.

The Postgraduate Surgical Assembly of the Southeastern Surgical Conference was held at the Biltmore Hotel, Atlanta, March 6-8. Appearing on the program, amongst others, were the following New Orleans' physicians: Drs. Howard R. Mahorner, Mims Gage, and W. R. Buffington.

The C. Jeff Miller lecture was delivered by Dr. Irvin Abell, President of the American Medical Association.

NEWS ITEMS

Dr. Leon J. Menville addressed the Mobile County Medical Society, March 18, on "Irradiation Therapy in the Endocrinology."

Dr. W. H. Hoffmann, Director in the Finlay Institute, Yellow Fever Department, Havana, has been nominated Honorary Member of the Robert Koch Institute, Berlin.

Dr. Isidore Cohn, Associate Director of the Department of Surgery of the Graduate School of Medicine, Louisiana State University Medical Center, attended the meeting of the Fracture Committee of the American College of Surgeons in Philadelphia on February 10-11. Dr. Charles Odom, surgical officer at Charity Hospital, attended the meeting also with Dr. Cohn as a guest of the Committee.

Dr. Charles Bloom, Director of the Department of Pediatrics of the Graduate School of Medicine, Louisiana State University Medical Center, addressed the Tangipahoa Parish Medical Society on "Upper Respiratory Infections in Infancy and Childhood" on Thursday, January 5, 1939, at Hammond, Louisiana. On January 19, 1939, Dr. Bloom spoke before the Second District Medical Society on "Infant Feeding and Foods." On March 3, Dr. Bloom addressed the Iberville Parish Medical Society, at Plaquemine, on "Appendicitis in Infancy and Childhood."

Dr. Daniel N. Silverman, Director of the Division of Gastro-enterology, Graduate School of Medicine, Louisiana State University Medical Center, has been invited to give one of the Max Ballin Annual

Memorial Lectures at Detroit on March 8. Dr. Silverman will hold a clinic and give a lecture on "The Newer Knowledge of Bacillary Dysentery with Particular Reference to Diagnosis and Complications."

Dr. Silverman will also read a paper on "Perforations of the Colon Complicating Bacillary Dysentery" at the annual meeting of the American Gastro-enterological Association on May 1 and 2 at Atlantic City.

Applications for the position of Associate Medical Officer in the Veterans' Administration must be filed with the United States Civil Service Commission before April 10, 1939. An Associate Medical Officer in the Veterans' Administration is paid a salary of $3,200 a year; his duties are "to perform professional duties as a doctor of medicine in active practice in hospitals, in dispensaries, in facilities, or in the field." Application blanks may be obtained at the Customhouse in New Orleans, or by writing the Secretary of the Board of United States Civil Service Examiners, Washington, D. C.

WANTED

COPIES OF THE JANUARY AND MARCH, 1939 ISSUES OF THE JOURNAL! Phone Raymond 6361 if you have one. We will be glad to call for it.

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons announces that the annual Foundation Prize for this year will be $100.00. Those eligible include only (1) interns, residents, or graduate students in Obstetrics, Gynecology and Abdominal Surgery, and (2) physicians (M. D. degree) who are actually practicing or teaching Obstetrics, Gynecology or Abdominal Surgery.

Competing manuscripts must (1) be presented in triplicate under a nom-de-plume to the Secretary of the Association before June 1, (2) be limited to 5,000 words and such illustrations as are necessary for a clear exposition of the thesis, and (3) be typewritten (double-spaced) on one side of the sheets, with ample margins.

The successful thesis must be presented at the next annual (September) meeting of the Association, without expense to the Association and in conformity with its regulations.

For further details, address Dr. James R. Bloss, Secretary, 418 11th Street, Huntington, W. Va.

The American Physicians' Art Association composed of members in the United States, Canada, and Hawaii, will hold its second Art Exhibit in the City Art Museum of St. Louis, May 14-20, 1939, during the annual session of the American Medical Association. Art pieces will be accepted for this art show in the following classifications: (1) oils, both (a) portrait and (b) landscape; (2) water colors; (3) sculpture; (4) photographic art; (5) etchings; (6) ceramics; (7) pastels; (8) charcoal drawings; (9) book-binding; (10) wood carving; (11) metal work (jewelry). Practically all pieces sent in will be accepted. There will be over 60 valuable prize awards. For details of membership in this Association and rules of the Exhibit, kindly write to Max Thorek, M. D., Secretary, 850 Irving Park Blvd., Chicago, Ill., or F. H. Redewill, M. D., President, 521-536 Flood Bldg., San Francisco, Calif.

FEDERAL PARTICIPATION IN GRADUATE MEDICAL EDUCATION

With the passage of the Social Security Act in 1935, there occurred a sudden and often an initial participation of various state agencies, under the impetus of federal grants, in the extension training of practicing physicians. Under the present interpretation of the Act, graduate teaching may originate locally within each state, may be administered locally under the supervision or approval of the state, with financial participation by the state itself, but must finally be approved by the proper bureaus in Washington before federal funds are allocated.

The state agency, usually the health department, must also provide for cooperation with medical, nursing and welfare organizations.

The United States Public Health Service receives $8,000,000 under the Act each year and, stimulated by federal grants in aid, the state and local appropriations for public health purposes have increased $8,000,000 annually. During the fiscal year ended June 30, 1938, $1,116,000 was allocated to all states for training public health personnel, and 4,300 public health workers were trained chiefly in eight regional medical centers under university auspices. The same year Congress appropriated $3,000,000 to assist states in the prevention, control and treatment of venereal disease. The financing of training courses for practicing physicians has resulted. Similar measures have been instituted for such diseases as cancer, tuberculosis, pneumonia and gonorrhea, and in each the training of physicians has been included.

The Children's Bureau of the United States Department of Labor has an annual appropriation of $3,800,000 for aiding the states in their maternal and child health programs. During the fiscal year ended June 30, 1938, postgraduate lecture courses in obstetrics for local practicing physicians were held in 316 centers in thirty-two states and were attended by more than 8,000 physicians. Postgraduate lecture courses in pediatrics were attended by more than 6,000 physicians in 243 centers in twenty-six states. The bureau also receives $2,850,000 annually for crippled children programs. Postgraduate courses for local physicians in the early recognition and treatment of crippling conditions were provided for in seven

states. In at least twelve states federally financed courses have been attempted without conspicuous success.

While it is not possible to account for all federal funds expended for professional training, nor to measure the effects of such expenditures on improving the quality of medical care, it is possible to give the approximate amounts provided the various states for graduate medical education. These amounts range from at least $2,000 to $29,000 annually. For all states an aggregate of $300,000 would be a conservative estimate of federal expenditures for the training of physicians during one year.

The government has offered financial aid for graduate training touching every field of practice. In nine states graduate programs for practicing physicians have been administered almost entirely by the state agency; in eleven professional training is chiefly the concern of the state agency with little assistance from the medical association while sixteen extension courses in other states are jointly administered. Eight state medical associations have developed representative organizations for the effective administration of government aided courses with the approval of state agencies. These are: Iowa, Massachusetts, Michigan, New York, Oklahoma, Tennessee, Virginia and West Virginia. A significant difference in response has been noted in states where the state medical associations have actively administered graduate programs, in that programs are generally less costly, are better organized, are better attended and instructors, appreciative of the problems of medical practice, aid in making these courses more satisfactory to practicing physicians.

Comment: Should state medical associations be urged to administer extension courses for practicing physicians, cooperating where desirable with other interested agencies?—Bulletin from the A. M. A.

INFECTIOUS DISEASES IN LOUISIANA

Dr. J. A. O'Hara, epidemiologist for the State of Louisiana, has furnished us with the weekly morbidity reports for the state, which contain the following summarized information: For the week ending February 11, there was a sharp increase in the number of cases of measles reported, there being 177 this week. However, as usual, syphilis led all reported disease with a figure of 197. Other diseases reported in double figures included 53 cases of pneumonia, 25 of pulmonary tuberculosis, 23 each of hookworm and chickenpox, 20 of influenza, 19 of cancer, 18 of diphtheria, 12 of typhoid fever, 11 of whooping cough and 10 of gonorrhea. A case of poliomyelitis was reported from East Carroll Parish; cases of tularemia were reported from East Baton Rouge, Iberville and St. James. For the week ending February 18, measles led all other reported diseases, even syphilis, with 145 cases, followed by the latter disease with 112. Then came 58 cases of chickenpox, 53 of pneumonia, 24 of pulmonary tuberculosis, 18 of cancer, 16 of typhoid fever, 15 of diphtheria, 14 of gonorrhea and whooping cough, 12 of scarlet fever and 11 of influenza. A case of poliomyelitis was reported from Union Parish this week. The typhoid fever cases were scattered through the southern part of the state, for the most part, and no one parish reported more than three cases. For the week which came to a close February 25, the following important diseases numerically were listed: 173 cases of syphilis, 136 of measles, 56 of pulmonary tuberculosis, 44 of typhoid fever, 32 of pneumonia, 23 of chickenpox and diphtheria, 16 of scarlet fever, 13 of cancer, 12 of whooping cough and 11 of hookworm. Twenty-eight cases of typhoid fever were reported from Orleans Parish, but 24 of these were imported from parishes lying to the south of the city. For the week ending March 4, there were reported 247 cases of syphilis, 183 of measles, 54 of typhoid fever, 10 times the five year average, 30 of influenza, 27 of chickenpox, 26 of pneumonia, 24 of gonorrhea, 23 of pulmonary tuberculosis, and 10 of cancer. Thirty of the cases of typhoid fever originated in St. Charles Parish and 17 of those reported from Orleans Parish were imported again from the parishes lying immediately to the south and west of the city. A case of poliomyelitis was reported from St. Landry Parish. For the week ending March 11, the mild epidemic of measles continued with 201 cases listed, followed by 132 of syphilis, 95 of pneumonia, 82 of influenza, 56 of typhoid fever, 31 of hookworm, 29 of whooping cough, 25 of diphtheria, 21 of cancer and pulmonary tuberculosis, 14 of scarlet fever, 13 of gonorrhea and 10 of chickenpox. A case of typhus fever was reported in Calcasieu Parish; a case of smallpox from Orleans Parish. The typhoid fever epidemic still persisted, 10 cases being listed in Lafourche, 10 in St. Charles and, of the 25 listed from Orleans Parish, practically all of them were imported from the two neighboring parishes to the south of the city.

HEALTH OF NEW ORLEANS

The Department of Commerce, Bureau of the Census, reports that for the week ending February 18, there were 145 deaths in the City of New Orleans, 89 in the white and 56 in the negro. These figures were almost identical with those of the preceding week, two more deaths in the white race being the only difference. For the week ending February 25, 156 deaths occurred, 94 white and 62 amongst the negro race. There were 20 deaths in children under one year of age, 8 white and 12 negro, as contrasted with 7 white and 10 negro in the previous week. For the week which came to a close March 4, there was a sharp increase in the number of deaths in the City of New Orleans, 188

citizens expiring in this seven day interval. Of these, 116 were in the white and 72 in the negro population. The infant death rate was remarkably small, only six babies died. The deaths had to do with the adult population of the city very largely. For the week ending March 11, there was again a sharp increase in the number of deaths in New Orleans, 210 being reported of which 138 were white and 72 negro. Again this large increase in the number of deaths was due to adults as there were only 10 deaths in infants this week.

WOMAN'S AUXILIARY

Louisiana State Medical Society

President—Mrs. Frederick G. Ellis, Shreveport.

President-elect—Mrs. S. M. Blackshear, New Orleans.

First Vice-President—Mrs. C. A. Martin, Welsh.

Second Vice-President—Mrs. A. G. McHenry, Monroe.

Third Vice-President—Mrs. D. C. McBride, Alexandria.

Fourth Vice-President—Mrs. A. F. Hebert, New Orleans.

Treasurer—Mrs. O. C. Rigby, Shreveport.

Recording Secretary—Mrs. D. T. Milam, Monroe.

Parliamentarian—Mrs. A. A. Herold, Shreveport.

Corresponding Secretary—Mrs. C. B. Erickson, Shreveport.

Historian—Mrs. W. P. Gardiner, New Orleans.

Chairmen of Standing Committees

Archives—Mrs. Chaillé Jamison, New Orleans.

Doctors' Day—Mrs. H. Aubrey White, Alexandria.

Exhibits—Mrs. George D. Feldner, New Orleans.

Finance—Mrs. J. E. Heard, Shreveport.

Historian—Mrs. W. P. Gardiner, New Orleans.

Hygeia—Mrs. C. P. Gray, Monroe.

Indigent Physicians—Mrs. Isidore Cohn, New Orleans.

Legislation—Mrs. C. A. Lorio, Baton Rouge.

Organization—Mrs. Roy Carl Young, Covington.

Press and Publicity—Mrs. R. T. Lucas, Shreveport.

Printing and Supply—Mrs. R. L. Simmons, Shreveport.

Program—Mrs. Aynaud F. Hebert, New Orleans.

Public Relations — Mrs. Walter Moss, Lake Charles.

Revision of By-laws—Mrs. J. L. Scales, Shreveport.

Councilors

First District—Mrs. W. R. Buffington, New Orleans.

Second District—Mrs. R. B. Harrison, New Orleans.

Third District—Mrs. C. M. Horton, Franklin

Fourth District—Mrs. Charles Gowen, Shreveport.

Fifth District—Mrs. Armand McHenry, Monroe.

Sixth District—Mrs. A. W. Martin, Bogalusa.

Seventh District—Mrs. T. H. Watkins, Lake Charles.

Eighth District—Mrs. R. B. Wallace, Alexandria

THE ANNUAL CONVENTION
ALEXANDRIA, APRIL 24-26

HEADQUARTERS—BENTLEY HOTEL

General Chairman
Mrs. Paul King Rand

Registration Desk.....Lobby, First Floor
Mrs. O. B. Owens.....General Chairman
Mrs. W. J. Rein.....Vice-Chairman

Chairmen of Sub-Committees

Mrs. O. B. Owens.....Registration
Mrs. R. B. Wallace.....Information
Mrs. H. A. White.....Toastmistress
Mrs. P. F. Murphy.....Publicity
Mrs. J. A. White, Sr.....Exhibits
Mrs. S. L. Calhoun.....Transportation
Mrs. M. H. Foster.....Luncheon
Mrs. D. C. McBride.....Tea
Mrs. L. D. Gremillion.....Dinner Dance
Mrs. J. H. Landrum.....Flowers

Pages
Martha Capell
Claudia Murphy
Mary Littell
Mary McGill

PROGRAM

Monday, April 24, 1939

1:00 p.m. Registration.....Hotel Bentley, First Floor
Garden Pilgrimage Sponsored by Alexandria Rotary Club
4:00 p.m. Coffee Party.....Mrs. P. K. Rand, Hostess, Vance Ave., Alexandria
8:00 p.m. Opening Meeting, Louisiana State Medical Society.....Venetian Room, Bentley Hotel

Tuesday, April 25, 1939

10:00 a.m. Pre-convention Executive Board Meeting.....Bentley Room, Hotel Bentley
Invocation.....Father Prevot
12:00 noon Barbecue.....City Park
4-6 p.m. Informal Open Tea.....Mrs. S. J. Phillips, Hostess, Louisiana State Hospital, Pineville.
6:30 p.m. Dinner Followed by Dance...Venetian Room, Hotel Bentley.

Wednesday, April 26, 1939

9:30 a.m. General Session of Auxiliary—

9:30 a.m. Bentley Room, Hotel Bentley. Mrs. Frederick G. Ellis, President, presiding.

Invocation.....Rev. G. Kearnie Keegan
Welcome Address...Mrs. M. B. Pearce
Response to Address of Welcome—Mrs. Walter Moss
"In Memoriam".....Mrs. C. U. Johnson
Vocal Selection.....Mrs. H. P. Forsyth
Benediction.....Rabbi Albert Baum

Reading of Minutes

Reports: State Officers
State Committees
Parish Auxiliaries
Special Committees

Report of Woman's Auxiliary to American Medical Association:
Meetings.....Mrs. A. A. Herold
Social Events.....Mrs. J. Q. Graves
Report of Woman's Auxiliary to Southern Medical Association.....Mrs. R. L. Simmons
Unfinished Business
Recommendations of Executive Board
New Business
Report of Nominating Committee
Election of Officers
Introduction of New Officers
Announcements by New President, Mrs. S. M. Blackshear
Adjournment

12:30 p.m. Luncheon.....Mirror Room, Hotel Bentley. Tickets $1.25

Toastmistress..Mrs. H. Aubrey White

2:00 p.m. Post-convention Executive Board Meeting.....Bentley Room, Hotel Bentley

Mrs. S. M. Blackshear, President, Woman's Auxiliary to the Louisiana State Medical Society, presiding.

OUACHITA PARISH

A luncheon was given Thursday at the Lotus club by members of the Ouachita Parish Medical Auxiliary. Several state officers from Shreveport were guests of honor on this occasion including Mrs. F. G. Ellis, president; Mrs. O. C. Rigby, treasurer; Mrs. Charles Gowen, councilor; Mrs. R. L. Simmons and Mrs. C. B. Erickson.

Mrs. A. D. Tisdale, president of the Fifth District Federated Clubs, made an address on the "Control of Cancer."

The luncheon table was beautifully decorated with japonicas, placed at intervals along the center. Hostesses were Mesdames C. P. Gray, B. McE. McKoin, P. L. Perot, J. P. Brown, D. I. Hirsch.

Mrs. R. W. O'Donnell,
Press and Publicity Chairman

RAPIDES PARISH

The Woman's Auxiliary to the Rapides Parish Medical Society held its monthly meeting at the Bentley Hotel, on Friday, March 10, 1939. The meeting was well attended by auxiliary members, doctors, and guests.

As guest speaker, Mrs. Nathan J. Bender of the Caddo Parish Auxiliary gave a most interesting and instructive talk on "Socialized Medicine." The auxiliary, in this program, fulfilled its reason to be, in receiving some most timely information on this vital subject. The audience came away more firmly than ever convinced to keep informed along these lines.

Mrs. Frederick G. Ellis, President of the Woman's Auxiliary to the Louisiana State Medical Society, also was a guest at this meeting and gave a most inspiring, informal talk on auxiliary work in general.

The auxiliary members are busy with plans for the convention, and are looking forward to a large attendance. Alexandria, being in the center of the state, is easy of access, and has excellent hotel accommodations. Plans are being made for a full program of entertainment. Let's make this a banner year in State Auxiliary attendance.

Mrs. P. F. Murphy,
Press and Publicity Chairman

ORGANIZATION

SECOND DISTRICT

Mrs. Carl Young, State Chairman of Organization of the Woman's Auxiliary to the Louisiana State Medical Society, organized the Second District Woman's Auxiliary February 11. The Second District Medical Society is Composed of the parishes of Jefferson, St. James, St. Charles and St. John.

The meeting was held at the home of Mrs. P. A. Donaldson in Reserve. Mrs. Donaldson was elected president; Mrs. W. F. Bolton, of Vacherie, vice-president; Mrs. J. E. Clayton, of Norco, secretary, and Mrs. J. J. Massony, of Westwego, treasurer.

Following the business meeting, delicious refreshments were served.

TANGIPAHOA PARISH

On February 1, Mrs. R. Carl Young organized the Woman's Auxiliary to the Tangipahoa Parish Medical Society at Hammond. Officers of the new organization: Mrs. M. C. Wiginton, of Hammond, president; Mrs. L. L. Ricks, of Independence, vice-president; and Mrs. E. J. Kevlin, of Ponchatoula, secretary-treasurer.

Accompanying Mrs. Young were Mrs. A. W. Martin, of Bogalusa, Councilor of the Sixth District, and Mrs. Stanley Desporte, also of Bogalusa.

Respectfully submitted,
Mrs. R. T. Lucas,
Press and Publicity Chairman

BOOK REVIEWS

ABC of the Vitamins: By Jennie Gregory, M. S. Baltimore, Williams and Wilkins Co., 1938. Pp. 93.

Miss Gregory presents the essential facts about vitamins in this 93-page volume. She uses graphs, tables, charts, and pictures to illustrate the history, chemistry, occurrence and physiologic action of the vitamins, geographic distribution of avitaminoses, the chemical manifestations of vitamin deficiency diseases, and human vitamin requirements. When the author prepared this book she had in mind supplying an outline of essential information for both laymen and scientific students.

There is a tendency toward oversimplification, but despite this the material is fairly accurate. No mention is made of the recent clinical results with nicotinic acid and vitamin K, and several other recent advances are not described. Some of the shortcomings of the book lie in the very nature of its subject: Advances in the field of vitamins are being made so rapidly that any treatise on vitamins is out of date even before it is printed.

F. W. BERNHART, Ph. D.

Modern Surgical Technic: By Max Thorek, M. D., K. L. H. (France) K. C. (Italy). Philadelphia, J. B. Lippincott Co., 1938. 3v. pl. illus. Price, $33.00.

These three volumes contain descriptions of a selected collection of operative procedures which the author considers are most useful and which he believes are superior to other methods. The work embraces all fields of surgery including: neurosurgery; orthopedic surgery; gynecologic surgery; and eye, ear, nose, and throat surgery. There are descriptions of the operations which are employed in the newer fields of surgery, such as, thoracic surgery, surgery of the sympathetic nervous system, and surgery of the heart. In some instances, the illustrations and comments concerning indications for operation are taken from the original publications. Notations are made concerning technical difficulties which may be encountered in the performance of these operations. The author has necessarily omitted many operations which other surgeons prefer and he has included some procedures which are obsolete. To increase the usefulness of the book for reference purposes there is an author index as well as a general subject index.

AMBROSE STORCK, M. D.

You can Sleep Well: The A B C's of Restful Sleep for the Average Person: By Edmund Jacobson, M. D. New York, Whittlesey House, 1938. Pp. 269. Price, $2.00.

This attractively published book, of some two hundred and sixty-nine pages and nineteen chapters, furnishes easy, instructive and entertaining reading, and the narrative is alluring because the nature of sleep remains unknown after countless years of observation, speculation, investigation and research. However, today, some evidence suggests that there may be a sleep center hidden somewhere in the central nervous system.

Dr. Edmund Jacobson, the author of "You Can Sleep Well" is the Director of a Chicago laboratory for clinical psychology and has spent some thirty years on the sleep problem. He believes there is close relationship between muscle tension and insomnia. Several years ago he wrote "You Must Relax" which attracted much attention and he has constructed an electrical device sufficiently sensitive to record the faintest residual tension in apparently completely relaxed muscles. Dr. Jacobson thinks this residual tension is an important cause of insomnia and, in his book, he describes how one can eliminate it by mastering the art of relaxation which is "a method of education having to do with self control." He does not state, as many scientists believe, that sleeplessness is a symptom of an impairment, rather than a distinct pathologic condition. Dr. Jacobson is not a visionary, nor is he prodigal in his assertions, and he warns that the prolonged application of correctly applied effort is essential for relief of insomnia.

After reading the last chapter "What Is Sleep?", the reviewer failed to find an answer to the question. He closed the book with the conviction that the mystery of the nature of sleep remains unsolved and that, after all, one is apt to sleep well when he has completed a moderately active and successful day without indulging in any excesses and when he does not, as he retires, wonder if he will sleep.

C. P. MAY, M. D.

Veterinary Helminthology and Entomology: By H. O. Mönnig. Second Edition, Baltimore. William Wood and Company. Price, 30s. Pp. 409.

Mönnig's revised (second) edition presents the subject of parasitology for veterinarians in 409 pages, with numerous illustrated photographs and clear line drawings.

A short introduction giving basic definitions and theories and a very brief historical sketch are followed by a section on technics of examination, in which the more valuable and practical methods have been selected. The members of the Phyla Platyhelminthes, Nemathelminthes and Annelida, parasitic in domesticated and fur-bearing animals, are considered with special reference to structure, life cycle, host-tissue reaction, diagnosis, treatment and prevention. After a general discussion of the morphology and veterinary importance of arthropods, the members of this group are individually

presented as parasites and transmitters of disease. A valuable host parasite list follows.

While figure 88 (p. 148) shows correctly that Trichinella is viviparous, on p. 149 it is stated that eggs are laid. Yet differential diagnosis of trichinosis in intestine sections uses the very absence of eggs to clinch the diagnosis.

The book is primarily intended as a textbook for veterinarians. Its usefulness for those interested in human parasitology and comparative pathology would have been broadened if more space had been dedicated to the tissue reactions caused by the parasites and to their epidemiology.

WILLI SAWITZ, M. D.

Introduction to Ophthalmology: By Peter C. Kronfeld, M. D. Springfield, Ill., Charles C. Thomas, 1938. Pp. 331. Price, $3.50.

This interesting, well written, and informative volume of some three hundred pages is more than its title implies. Although primarily intended for those who contemplate ophthalmology as a life work, the author presents some of its most recent and complex concepts in a simple, readable way.

Dr. Kronfeld was Professor of Ophthalmology in the Peiping Union Medical College until the Sino-Japanese erased it from the map. He is the cream of the crop among pre-Nazi Viennese ophthalmologists, and is exceptionally well informed.

A cross-section of its contents can best be presented to the prospective reader by a few direct and indirect quotations.

If the sclera loses 30 per cent or takes up 20 per cent of water, it becomes transparent. The cornea consumes in 24 hours its dry weight of oxygen, which is approximately one-third of that consumed by the brain. The lens contains the highest protein content in the body. Its transparency is maintained partly by two auto-oxidative systems, one represented by glutathione, and the other by ascorbic acid. Fisher believes that 1.7 liters of blood run through the uveal tract of a rabbit daily. There is no evidence of vasodilating nerve fibers in the eye. The appearance of cotton-wool spots or hemorrhages is the warning of approaching more or less permanent arteriolar organic disease in pregnancy and suggests its termination. The term, "albuminuric retinitis," is largely a misnomer. Of little diagnostic importance, diabetic retinitis worries the ophthalmologist more than the internist because of its failure to change with treatment. Hypotony is a valuable sign in late diabetes because absent in apoplexy and uremia. In uveal sarcoma, the mixed cell type is the most malignant and the spindle cell, least. Traquair's concept is that sight is an island of sight surrounded by an ocean of blindness. Discrepancies between field defects and disc pallor are often not proportionate. Because the fixation point is more usually involved, homonymous hemianopics are more likely to run into objects on the blind side than heteronymous hemianopics. The pupillary centers and pathways are poorly insulated as there is hardly a nervous process that does not affect pupillary mobility. The impulses for willed, or voluntary ocular movements seem to originate more in the frontal centers, while those responding to reflex stimuli, more in the occipital centers.

Thanks should be given to Dr. Kronfeld for a book that is different, that is informative, and that is exceptionally readable.

CHARLES A. BAHN, M. D.

Midwifery: By ten teachers, under the direction of Clifford White; edited by Sir Comyns Berkeley, Clifford White and Frank Cook. Baltimore, William Wood & Co., 1938. Pp. 676, illus. Price, $6.00.

This edition, the sixth of its kind, is prepared by the leading authorities on obstetrics and gynecology of the British Isles for the purpose of reviewing obstetrics in a clear and concise manner for students and practitioners. The book accomplishes this purpose in as good a manner as such a comprehensive subject can be handled in a limited space.

The latest accepted beliefs regarding pregnancy and its management as well as the complications, operative procedures, laboratory aids and end results are developed without too extensive discussion of the various theories involved. Treatment has been given a short but practical allotment in space.

In the final analysis the volume is an adequate and satisfactory review text of obstetrics.

JOHN C. WEED, M. D.

Scarlet Fever: By George F. Dick, M. D., D. Sc., and Gladys Henry Dick, M. D., D. Sc. Chicago, The Year Book Publishers, Inc., 1938. Pp. 149. Price $2.00.

This monograph, by the two people who are better qualified to write on this subject than any one else in the world, is an excellent summary of the information that is now known about scarlet fever. Naturally, as would be expected, there is a considerable amount of space devoted to the treatment of scarlet fever, preparation of toxin and the skin test for susceptibility. As a matter of fact, from page 53 on to the end of the book, the contents have largely to do with the experimental work the Dicks have done in scarlet fever and particularly the work with hemolytic streptococcus. This exposition is not devoted solely to their own work but contains also an excellent selection from the literature.

The book is very well gotten up, the cover is handsome and tasteful. The format is excellent; the type is of a large font and very clear, and the colored illustrations are most graphic. At the end of the subject matter is a list of some 188 refer-

ences to matters discussed in the text. To those who are interested in obtaining the latest information about scarlet fever or those who are interested in immunology, the book can be heartily recommended.

J. H. MUSSER, M. D.

Hand Book on Social Hygiene: By W. Bayard Long, M. D., and Jacob A. Goldberg, M. A., Ph. D., F. A. P. H. A. Philadelphia, Lea & Febiger, 1938. Pp. 442. Price $4.00.

Though not implied by the title, this book might well have been termed the management of syphilis and gonorrhea. History, pathology, diagnosis, treatment and even legal aspects are considered. Elementary in part, yet technical enough to include laboratory procedures, it may serve the purpose of its authors as a source book on the various aspects of social hygiene. As such it is to be recommended particularly to nurses, public health and social workers or as a reference in preparing papers on any of the medical phases of social hygiene.

EUGENE H. COUNTISS, M. D.

Textbook of Experimental Surgery: J. Markowitz, M. D. Baltimore, William Wood and Company, 1937. Pp. 527. Price $7.00.

No one will dispute the valuable influence of laboratory experimentation in surgery during the past thirty years. Nothing is more important to graduate training in surgery than experimental surgery. The laboratory has established itself as a necessary adjunct to further developments in this field.

This book presents in detail the technical procedures necessary to perform certain types of operations used in experimental research. It is of value to all men interested in experimental surgery, and should be of interest to those students who contemplate postgraduate study in surgery as well as undergraduate students who wish to become familiar with technic as applied to experimental surgery. The operative technic described is suitable for the dog which is most often used.

The different chapters, including equipment, technic, sutures and instruments are well illustrated by drawings.

This book should convey to the reader the great value of experiments on dogs in the solution of practical surgical problems.

WARREN HÉBERT, M. D.

PUBLICATIONS RECEIVED

D. Appleton-Century Company, New York City: Landmarks in Medicine: Laity Lectures of the New York Academy of Medicine, with an introduction by James Alexander Miller, M. D., President, New York Academy of Medicine.

P. Blakiston's Son and Co., Inc., Philadelphia: Refraction of the Human Eye and Methods of Estimating the Refraction by James Thorington, A. M., M. D. Gould's Pocket Pronouncing Medical Dictionary, eleventh edition, revised by C. V. Brownlow.

Harvard University Press, Cambridge, Mass.: Health at Fifty, edited by Dr. William H. Robey.

Harvest House, New York City: The Complete Guide to Bust Culture by A. F. Niemoeller, A. B., M. A., B. S.

Paul B. Hoeber, Inc., New York City: Roentgen Diagnosis of the Spine and Extremities by Albert B. Ferguson, M. D.

The Johns Hopkins Press, Baltimore: Bacteria: The Smallest of Living Organisms by Dr. Ferdinand Cohn (1872), translated by Charles S. Dolley (1881).

Lea & Febiger, Philadelphia: Principles of Hematology by Russell L. Haden, M. A., M. D. A Manual of Fractures and Dislocations by Barbara Bartlett Stimson, M. D., Med. Sc. D., F. A. C. S. Elementary Anatomy and Physiology by James Whillis, M. D., M. S., F. R. C. S.

J. B. Lippincott Company, Philadelphia: The New International Clinics, Vol. 1, New Series Two, 1939, edited by George Morris Piersol, M. D., Surgical Pathology of the Diseases of the Mouth and Jaws by Arthur E. Hertzler, M. D.

The C. V. Mosby Company, St. Louis: Surgical Treatment of Hand and Forearm Infections by A. C. J. Brickel, A. B., M. D.

G. P. Putnam's Sons, New York City: Whence? Whither? Why? by Augusta Gaskell.

W. B. Saunders Company, Philadelphia: Surgical Anatomy by C. Latimer Callander, A. B., M. D., F. A. C. S. Anemia in Practice by William P. Murphy, A. B., M. D.

Charles C. Thomas, Springfield, Illinois, and Baltimore: The Patient Is the Unit of Practice by Duane W. Propst, M. D.

U. S. Government Printing Office, Washington, D. C.: Annual Report of the Surgeon General of the Public Health Service of the United States for the Fiscal Year 1938.